

Industrial Internet Innovation Center (Shanghai) Co.,Ltd.

EMC TEST REPORT

PRODUCT	Smart POS system
BRAND	SUNMI
MODEL	T6900
APPLICANT	Shanghai Sunmi Technology Co.,Ltd.
FCC ID	2AH25T6900P2
IC	22621-T6900P2
ISSUE DATE	January 11, 2023
STANDARD(S)	FCC Part 15, Subpart B, ANSI C63.4-2014, ICES-003 Issue 7.

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1 Summary of Test Report

1.1 Test Standard (s)

No.	Test Standard(s)	Title	Version
1	FCC Part 15, Subpart B	Radio frequency devices	2021/10/1
2	ANSI C63.4	Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014
3	ICES-003	Information Technology Equipment (Including Digital Apparatus)-Limits and Methods of Measurement	Issue 7
NOTE: 1. According to customer requirements, test and report using the latest version of the standard.			

1.2 Summary of Test Results

No.	Item(s)	Standard(s)	Verdicts for Single Item	Detaied Results
1	Radiated Emission	15.109(a)	Pass	See section 6.1
2	AC Conducted Emission	15.107(a)	Pass	See section 6.2

NOTE:

The T6900 manufactured by Shanghai Sunmi Technology Co.,Ltd. is a new product for testing. There are five configurations S08aa (Fingerprint edition mainly supply) & S16aa (Fingerprint edition secondary supply) & S03aa (Standard edition mainly supply) & S06aa (Standard edition secondary supply) & S26aa (Scan edition mainly supply) and three configurations battery (BA02 & BB02 & BC02) in this project. We mainly tested the configuration main supply, and the other configuration tested the worst mode of the main supply, and recorded the test results of the worst mode respectively in the report.

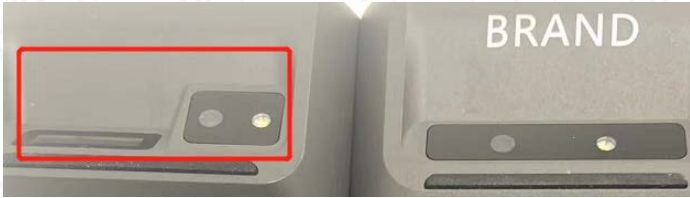
Industrial Internet Innovation Center (Shanghai) Co., Ltd. only performed test cases which identified with Pass/Fail/Inc result in section 1.3.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. has verified that the compliance of the tested device specified in section 4 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 1 of this test report.

The description of the differences between the models is updated as follows:

T6900			
Configuration1 (fingerprint S08aa & scanner S26aa & standard S03aa)			
Name	Model	Manufacturer	Spec
PCB	STM-5	SHENZHEN SUNTAK MULTILAYER PCB CO LTD	V-0 130℃
LCD	HS55ET10P 63B	Huashi Opto-Electronic Co., Ltd.	720X (RGB)(H) X 1440(V) dots TFT Type 3.25mm thickness
Rear camera	HNO0458	Holitech science Technology Co., Ltd.	Sensor: Hi556 1/5" Lens:DULE DL5280 VCM: RuienPF8526-44 F.NO:2.2 FOV:>77° Connection method: BTB
Battery	P2	Guangdong Fenghua New Energy Co.,Ltd.	2480mAh/7.6V
Printer	ATP2XEP6R TWENA	Xiamen Pinnacle Electrical Co.,Ltd	Thermal dot printing print 4.0-9.5V, 384dot, Dimension 67.3*18.25*30.0mm
Button cell	CR2032	Yichang Power Glory Technology Co.,Ltd.	Nominal Discharge current 0.2mA Nominal Voltage 3V Nominal Capacity 245(mAh)
Adapter	TPA- 23A050200 UU01	SHENZHEN TIANYIN ELECTRONICS CO.,LTD.	5V 2A
Configuration2(fingerprint S16aa & standard S06aa)			
Name	Model	Manufacturer	Spec

PCB	HF01	JIANGXI ZHIBOXIN TECHNOLOGY CO LTD	V-0 130℃
LCD	JL-P055H030-05	SICHUAN JINGLONG PHOTOELECTRIC SCIENCE AND TECHNOLOGY CO.,LTD	720X (RGB)(H) X 1440(V) dots TFT Type 3.25mm thickness
Rear camera	VM25C27	Shenzhen Chengxiangtong technology Co.,Ltd.	Sensor: GC05A2 1/5" Lens: Horui TR0517B VCM: Hozel VA26F502 F.NO:2.2 FOV:>77° Connection method: BTB
Battery	P2	DongGuan Veken Battery Co.,Ltd.	2480mAh/7.6V
Printer	LTP02-245-G2	Seiko Instruments Inc.	Thermal line dot printing print 5.5-9.5V, 384dot, Dimension 67.3*18.1*30.0mm
Button cell	CR2032	SHANGHAI LONGYOUNG CORPORATION.	Nominal Discharge current 0.2mA Nominal Voltage 3V Nominal Capacity 220(mAh)
Adapter	UC13US	Jiangsu Chenyang Electron Co.,Ltd.	5V2A
Configuration3(Based on configuration 1, fingerprint S08aa & standard S03aa)			
Name	Model	Manufacturer	Spec
PCB			
LCD			
Rear camera			
Battery	P2 Max	Guangdong Fenghua New Energy Co.,Ltd.	3000mAh/7.6V
Printer			
Button cell			
Adapter			
NOTE: 1)Configuration name difference: different suppliers and(or) models 2)Fingerprint ,scanner, standard difference: only the Mechanical shell is different, refer to the picture below: Fingerprint: 			

No.	Item(s)	Standard(s)	Verdicts for Single Item	Detaied Results
	scanner  Standard 			
3)	Hardware Version Id Number (HVIN): 1)T6900P2-1:Configuration1-fingerprint 2)T6900P2-2:Configuration1-scanner 3)T6900P2-3:Configuration1-standard 4)T6900P2-4:Configuration2-fingerprint 5)T6900P2-5:Configuration2-standard			

2 General Information of The Laboratory

2.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4, No. 766, Jingang Road, Pudong, Shanghai, China
Telephone	021-68866880
FCC Registration No.	958356
FCC Designation No.	CN1177
IC designation No.	CN0067

2.2 Laboratory Environmental Requirements

Temperature	15℃~35℃
Relative Humidity	25%RH~75%RH
Atmospheric Pressure	86kPa~106kPa
Supply Voltage	120V/60Hz

2.3 Project Information

Project Manager	Gao Hongning
Test Date	October 08, 2022 to November 30, 2022

3 General Information of The Customer

3.1 Applicant

Company	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505, No.388, Song Hu Road, Yang Pu District, Shanghai, China
Telephone	+86-17302160204

3.2 Manufacturer

Company	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505, No.388, Song Hu Road, Yang Pu District, Shanghai, China
Telephone	+86-17302160204

3.3 Factory

Company	N/A
Address	N/A

4 General Information of The Product

4.1 Product Description for Equipment under Test (EUT)

Product	Smart POS system
Model	T6900
Date of Receipt	September 30, 2022
EUT ID*	S08aa (Fingerprint edition mainly supply) S16aa (Fingerprint edition secondary supply) S03aa (Standard edition mainly supply) S06aa (Standard edition secondary supply) S26aa (Scan edition mainly supply)
SN/IMEI	869325026801002/869325026801010 869325026800780/869325026800798 869325026812009/869325026812017 869325026810920/869325026810938 862318060015875/862318060015883
Supported Radio Technology and Bands	GSM850/GSM900/GSM1800/GSM1900 WCDMA Band I/II/IV/V/VIII LTE Band 1/2/3/4/5/7/17/28/38/41 BT 4.2 WLAN 802.11b,g,n WLAN 802.11a,n GPS NFC
Hardware Version	B1691_MAIN_PCB
Software Version	SP6359A-20220922115332
NOTE1: EUT ID is the internal identification code of the laboratory. NOTE2: Photographs of EUT are shown in ANNEX A of this test report.	

4.2 Description for Auxiliary Equipment (AE)

AE ID*	Description	Model	SN/Remark
CA01	Adapter	TPA-23A050200UU01	N/A
CA18	Adapter	UC13US	N/A
UA18	USB Cable	N/A	N/A
BA02	Battery	P2	Guangdong Fenghua New Energy Co.,Ltd.
BB02	Battery	P2	DongGuan Veken Battery Co.,Ltd.
BC02	Battery	P2 Max	Guangdong Fenghua New Energy Co.,Ltd.

AE1	Notebook PC	DELL Latitude E6510	N/A
AE2	Desktop PC	OptiPlex 790 DT	X8RP1 A01 APCC
AE3	LAN Cable	N/A	N/A
AE4	VGA Cable	N/A	N/A
AE5	RS232 Cable	N/A	N/A
AE6	Keyboard	KB212-B	CN-0Y88XT-65890-12I-005Q-A00
AE7	Mouse	MS111-P	CN-011D3V-71581-19J-1A64
AE8	Monitor	Dell E1709Wc	N/A
AE9	Micro SD card	Kingston SDC4/4GB 77	N/A
NOTE: *AE ID is the internal identification code of the laboratory.			

5 Test Configuration Information

5.1 Laboratory Environmental Conditions

5.1.1 Permanent Facilities

Semi-anechoic chamber SAC3-1 (9 m*8m*6.2m) & SAC3-2 (9.8m*6.7m*6.7m)	
Shielding effectiveness	0.014MHz ~1MHz, >60dB; 1MHz~1000MHz, >90dB.
Electrical insulation	> 2MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (SVSWR)	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

Shielded room	
Shielding effectiveness	0.014MHz~1MHz, >60dB; 1MHz~1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω

5.2 Decision of final test mode

The EUT was tested in conjunction with the accessories in Section 4.2. We tested all of the following test modes and selected the worst mode from the test results and recorded them in the report.

The test configuration modes are as the following:

S08aa (Fingerprint edition mainly supply) + BA02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode Mode 4: Print mode+ CA01+ UA18 Mode 5: GPS mode+ CA01+ UA18
AC Conducted emission	Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode Mode 4: Print mode+ CA01+ UA18 Mode 5: GPS mode+ CA01+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, LTE Band 2/4 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 3 and for 1GHz -18GHz is Mode 2. 4. The worst case for conducted emission is mode 2.	

S16aa (Fingerprint edition secondary supply) + BB02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 6: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA18+ UA18 Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18 Mode 3: Data Link mode Mode 8: Print mode+ CA18+ UA18
AC Conducted emission	Mode 6: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA18+ UA18 Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18 Mode 3: Data Link mode Mode 8: Print mode+ CA18+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, LTE Band 2/4 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 7 and for 1GHz -18GHz is Mode 6. 4. The worst case for conducted emission is mode 8.	

S08aa (Fingerprint edition mainly supply) + BC02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode
AC Conducted emission	Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, LTE Band 4 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 3 and for 1GHz -18GHz is Mode 2. 4. The worst case for conducted emission is mode 2.	

S03aa (Standard edition mainly supply) + BA02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode Mode 4: Print mode+ CA01+ UA18 Mode 5: GPS mode+ CA01+ UA18
AC Conducted emission	Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode Mode 4: Print mode+ CA01+ UA18 Mode 5: GPS mode+ CA01+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, LTE Band 2/4 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 2 and for 1GHz -18GHz is Mode 1. 4. The worst case for conducted emission is mode 2.	

S06aa (Standard edition secondary supply) + BB02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 6: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA18+ UA18 Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18 Mode 3: Data Link mode Mode 8: Print mode+ CA18+ UA18
AC Conducted emission	Mode 6: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA18+ UA18 Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18 Mode 3: Data Link mode Mode 8: Print mode+ CA18+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, LTE Band 2/4 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 7 and for 1GHz -18GHz is Mode 7. 4. The worst case for conducted emission is mode 8.	

S03aa (Standard edition mainly supply) + BC02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18
AC Conducted emission	Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, LTE Band 2/4 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 2 and for 1GHz -18GHz is Mode 1. 4. The worst case for conducted emission is mode 2.	

S26aa (Scan edition mainly supply) + BA02:

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode Mode 5: GPS mode+ CA01+ UA18 Mode 10: Scan mode+ CA01+ UA18
AC Conducted emission	Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18 Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18 Mode 3: Data Link mode Mode 5: GPS mode+ CA01+ UA18 Mode 10: Scan mode+ CA01+ UA18
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. After laboratory verification, GSM850 is the worst mode among all receiving modes of 2G/3G/4G and is recorded in the report. 3. The worst case of radiated emission for 30MHz-1GHz is Mode 3 and for 1GHz -18GHz is Mode 1. 4. The worst case for conducted emission is mode 5.	

5.3 EUT System Operation

1. Connect the EUT with AE.
2. Setup the EUT according to the standard.
3. Start testing and monitoring the function.
4. Mode 3: Data Link mode means data application transferred mode between EUT and SD Card.
5. Mode 5: EUT and GNSS simulator (SMBV100A) connection is established.

5.4 EUT Connection Diagram of Test System

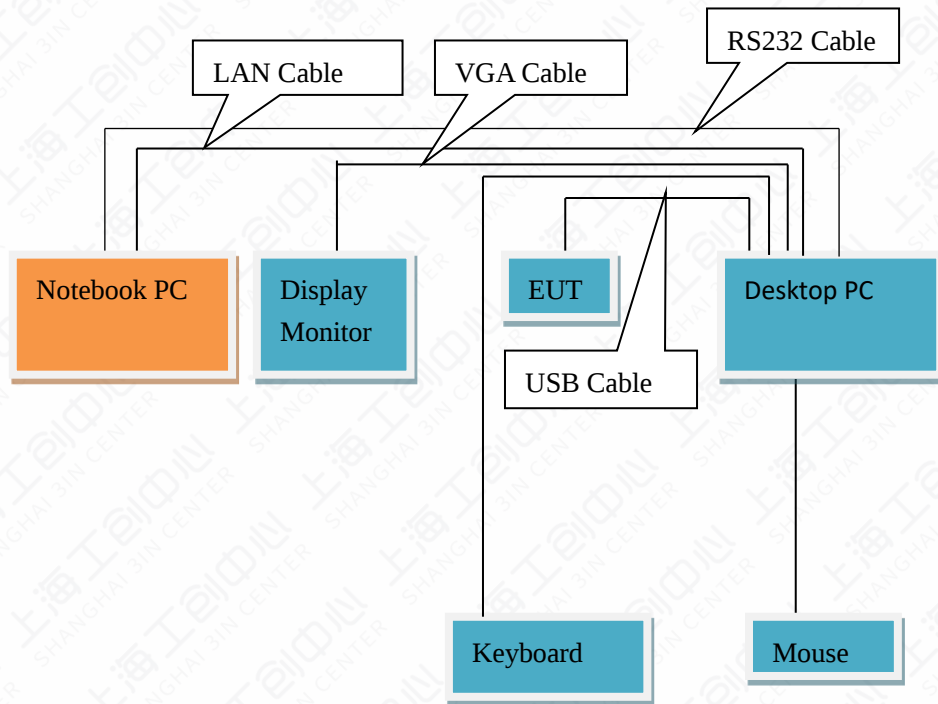


Figure 5.4-1 Mode 3

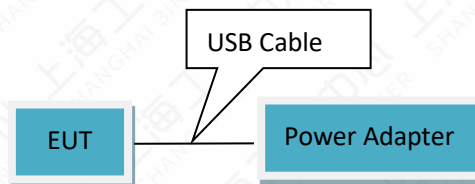


Figure 5.4-2 Mode 1-2,4-10

5.5 Test Equipment Utilized

No.	Name	Model	S/N	Manufacturer	Cal. Date	Cal. Interval
1	Universal Radio Communication Tester	CMW500	104178	R&S	2021-05-10	1.5 year
					2022-10-17	1 year
2	Test Receiver	ESCI	101235	R&S	2022-02-23	1 year
3	Test Receiver	ESU40	100307	R&S	2022-02-23	1 year
4	Trilog Antenna	VULB9163	VULB9163-515	Schwarzbeck	2022-03-11	1 year
5	Double Ridged Guide Antenna	ETS-3117	00135890	ETS	2022-03-09	2 years
6	2-Line V-Network	ENV216	101380	R&S	2022-02-21	1 year
7	EMI Test Software	EMC32 V9.15	N/A	R&S	N/A	N/A
8	GNSS simulator	SMBV100A	257904	R&S	2022-02-21	1 year

5.6 Measurement Uncertainty

Item (s)	Uncertainty
Radiated Emission 30MHz-1000MHz	4.94 Db
Radiated Emission 1000MHz-18000MHz	5.02 Db
Conducted Emission	3.56 Db

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

6 Test Results

6.1 Radiated Emission

6.1.1 Method of Measurement

- a. For 30MHz -1000MHz, the EUT was placed on the top of a rotating 0.8m table above the ground at a semi-anechoic chamber. The distance between the EUT and the received antenna was 3 meters. The table was rotated 360 degree and the received antenna mounted on a variable-height antenna tower was varied from 1m to 4m to find the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement.
- b. For 1000MHz -18000MHz, the EUT was placed on the top of a 0.8m table above the ground at a 3m fully anechoic chamber. The maximal emission value was acquired by adjusting the antenna height, The table was rotated 360 degree to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement

6.1.2 EUT Connection Diagram of Test System

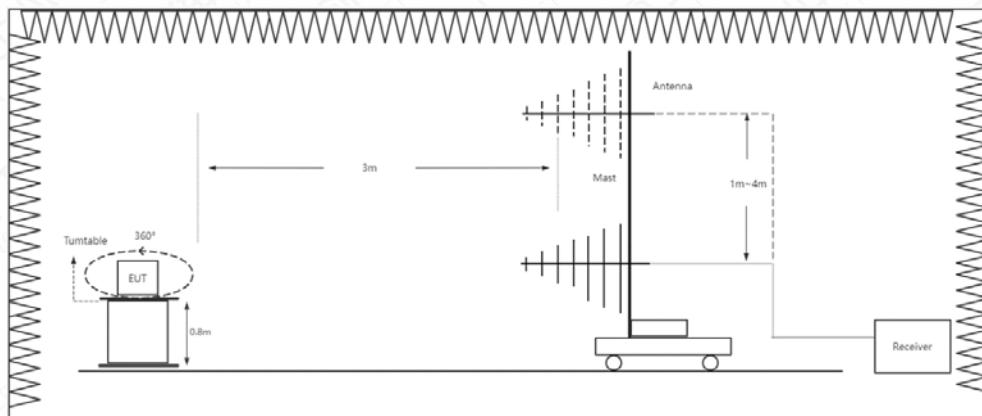


Figure 6.1.2-1 RE 30MHz-1GHz Connection Diagram

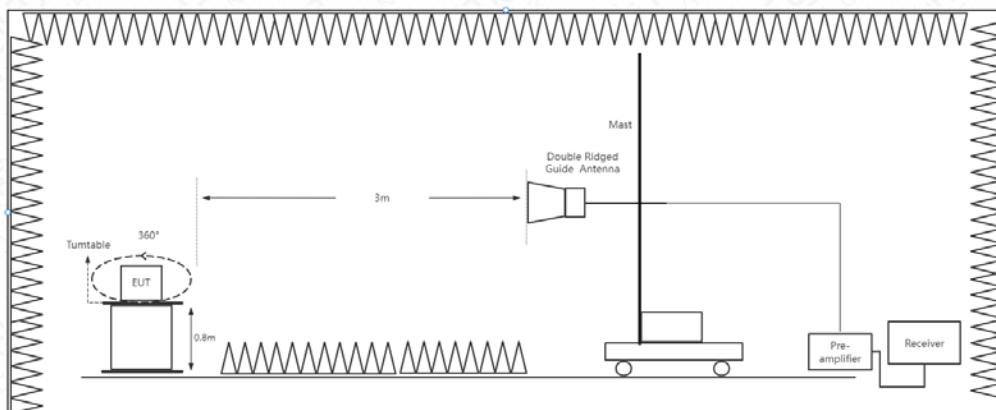


Figure 6.1.2-2 RE Above 1GHz Connection Diagram

6.1.3 Test Condition

Frequency Range (MHz)	RBW/VBW	Sweep Time (s)
30-1000	120kHz/300kHz	AUTO
1000-18000	1MHz/3MHz	AUTO

6.1.4 Limit/Criterion

Frequency Range (MHz)	Quasi-Peak (DbμV/m)	Peak (DbμV/m)	Average (DbμV/m)
30-88	40	N/A	N/A
88-216	43.5	N/A	N/A
216-960	46	N/A	N/A
Above 960	54	N/A	N/A
Above 1000	N/A	74	54

6.1.5 Test environmental conditions

Temperature	24.3℃
Relative Humidity	52.1%RH
Atmospheric Pressure	101.4 kPa

6.1.6 Test Results

S08aa (Fingerprint edition mainly supply) + BA02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 3: Data Link mode	30-1000	See Annex A.1-1	Pass
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	1000-18000	See Annex A.1-2 & A.1-3	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S16aa (Fingerprint edition secondary supply) + BB02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18	30-1000	See Annex A.1-4	Pass
Mode 6: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA18+ UA18	1000-18000	See Annex A.1-5 & A.1-6	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S08aa (Fingerprint edition mainly supply) + BC02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 3: Data Link mode	30-1000	See Annex A.1-7	Pass
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	1000-18000	See Annex A.1-8 & A.1-9	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S03aa (Standard edition mainly supply) + BA02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	30-1000	See Annex A.1-10	Pass
Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18	1000-18000	See Annex A.1-11 & A.1-12	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S06aa (Standard edition secondary supply) + BB02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18	30-1000	See Annex A.1-13	Pass
Mode 7: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA18+ UA18	1000-18000	See Annex A.1-14 & A.1-15	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S03aa (Standard edition mainly supply) + BC02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	30-1000	See Annex A.1-16	Pass
Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18	1000-18000	See Annex A.1-17 & A.1-18	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S26aa (Scan edition mainly supply) + BA02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 3: Data Link mode	30-1000	See Annex A.1-19	Pass
Mode 1: Adapter charging+ LTE Band 2 receiver mode+ Back Camera+ CA01+ UA18	1000-18000	See Annex A.1-20 & A.1-21	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

6.2 Conducted Emission

6.2.1 Method of Measurement

The EUT was placed on a 0.8m height table with EUT being connected to the power mains through a line impedance stabilization network (LISN). Both lines of the power mains connected to the EUT were checked for maximum conducted interference. The frequency range from 150 kHz to 30 MHz was searched.

6.2.2 EUT Connection Diagram of Test System

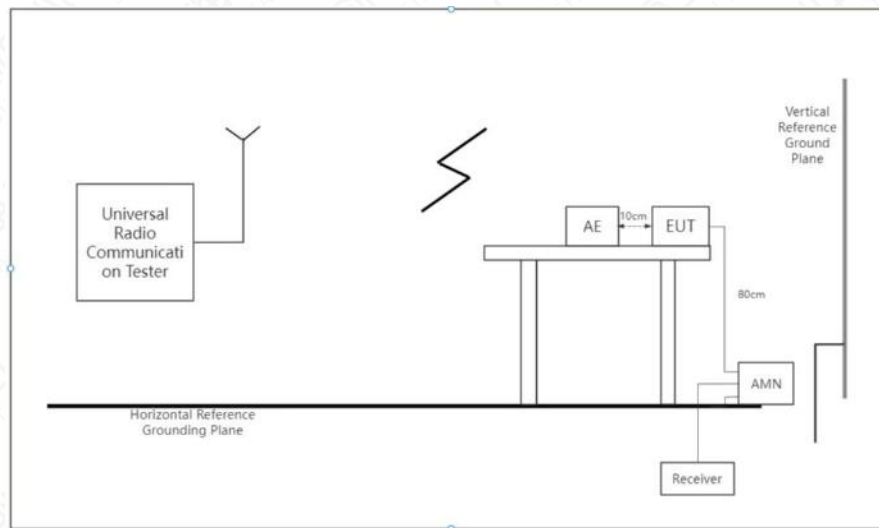


Figure 6.2.2-1 CE Connection Diagram

6.2.3 Test Condition

Test Condition in Charging Mode

Voltage (V)	Frequency (Hz)	RBW	Sweep Time (s)
120	60	9 kHz	AUTO

6.2.4 Limit

Frequency Range (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

6.2.5 Testing environmental conditions

Temperature	21.3℃
Relative Humidity	41.5%RH
Atmospheric Pressure	103.7kPa

6.2.6 Test Results

S08aa (Fingerprint edition mainly supply) + BA02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	0.15-30	See Annex A.2-1	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S16aa (Fingerprint edition secondary supply) + BB02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 8: Print mode+ CA18+ UA18	0.15-30	See Annex A.2-2	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S08aa (Fingerprint edition mainly supply) + BC02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	0.15-30	See Annex A.2-3	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S03aa (Standard edition mainly supply) + BA02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	0.15-30	See Annex A.2-4	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S06aa (Standard edition secondary supply) + BB02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 8: Print mode+ CA18+ UA18	0.15-30	See Annex A.2-5	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S03aa (Standard edition mainly supply) + BC02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Adapter charging+ LTE Band 4 receiver mode+ Front Camera+ CA01+ UA18	0.15-30	See Annex A.2-6	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S26aa (Scan edition mainly supply) + BA02:

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 5: GPS mode+ CA01+ UA18	0.15-30	See Annex A.2-7	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

Annex A: Measurement Data

A.1 Radiated Emission

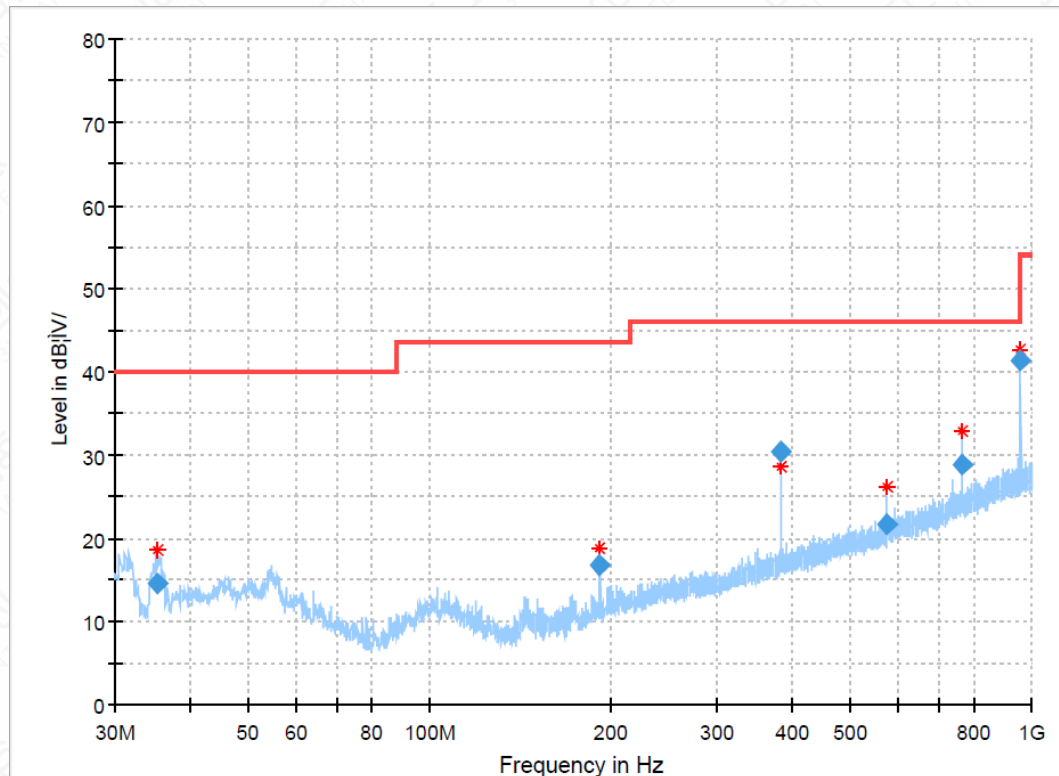


Figure A.1-1 Mode 3 (30M-1GHz) _ S08aa (Fingerprint edition mainly supply) + BA02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
35.320640	14.43	40.00	25.57	100.0	V	1.0	-14.5
191.974400	16.68	43.50	26.82	100.0	V	1.0	-13.2
383.995400	30.46	46.00	15.54	100.0	H	166.0	-7.6
576.002080	21.60	46.00	24.40	100.0	V	216.0	-3.9
768.050280	28.73	46.00	17.27	100.0	H	190.0	-0.4
959.997600	41.24	46.00	4.76	100.0	H	190.0	2.2

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

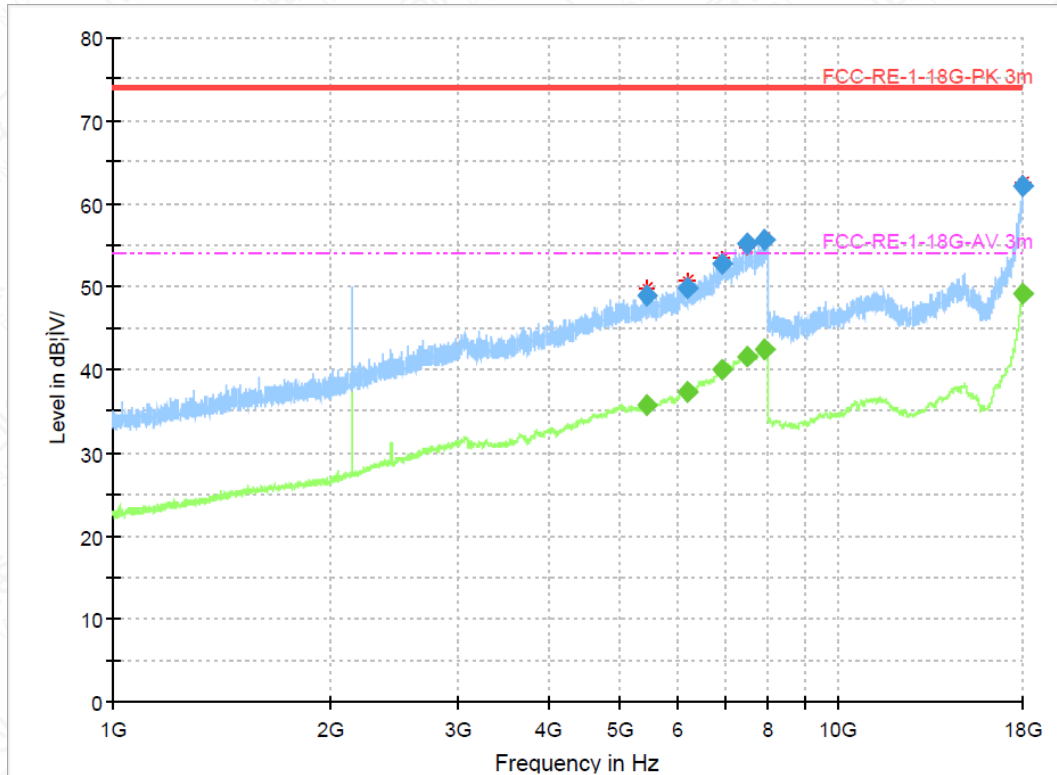


Figure A.1-2 Mode 2 (1GHz-18GHz)-H_S08aa (Fingerprint edition mainly supply) + BA02

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
5456.1350	48.85	---	74.00	25.15	500.0	1000.0	215.0	H	1.0	14.0
5456.1350	---	35.85	54.00	18.15	500.0	1000.0	215.0	H	1.0	14.0
6189.5225	---	37.34	54.00	16.66	500.0	1000.0	215.0	H	166.0	16.2
6189.5225	49.74	---	74.00	24.26	500.0	1000.0	215.0	H	166.0	16.2
6916.6112	52.79	---	74.00	21.21	500.0	1000.0	115.0	H	358.0	19.2
6916.6112	---	40.04	54.00	13.96	500.0	1000.0	115.0	H	358.0	19.2
7507.2912	---	41.61	54.00	12.39	500.0	1000.0	103.0	H	358.0	21.3
7507.2912	55.14	---	74.00	18.86	500.0	1000.0	103.0	H	358.0	21.3
7919.8662	---	42.44	54.00	11.56	500.0	1000.0	100.0	H	185.0	22.2
7919.8662	55.55	---	74.00	18.45	500.0	1000.0	100.0	H	185.0	22.2
17984.028	---	49.06	54.00	4.94	500.0	1000.0	105.0	H	358.0	31.2
17984.028	62.07	---	74.00	11.93	500.0	1000.0	105.0	H	358.0	31.2

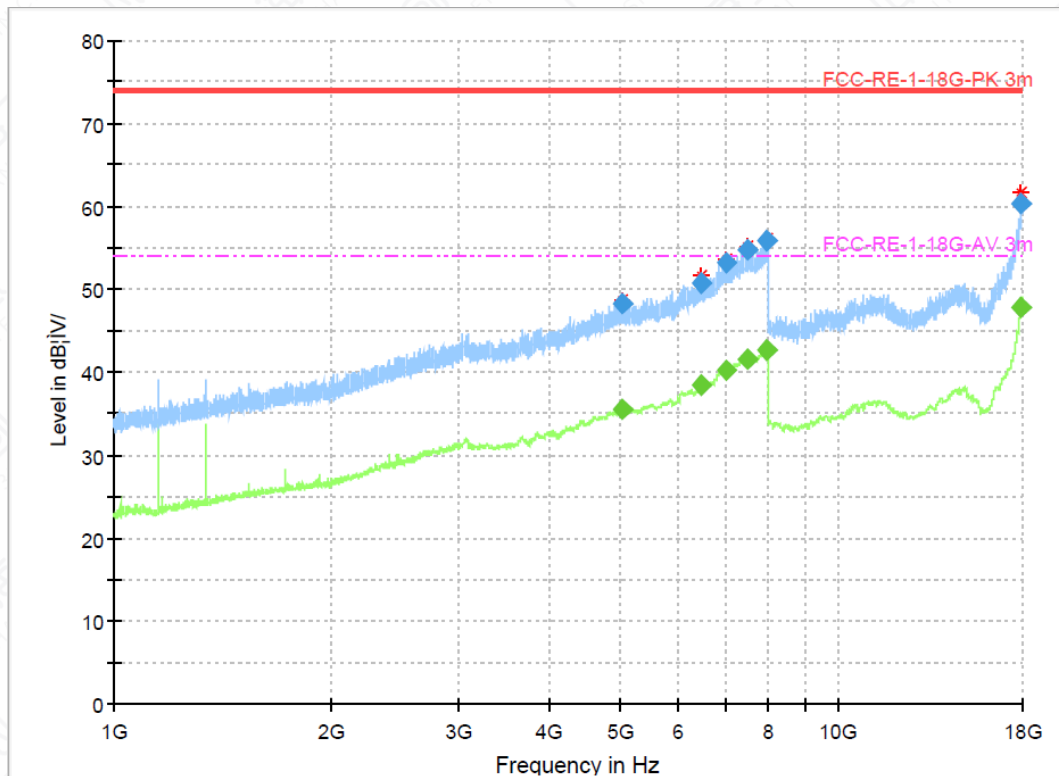


Figure A.1-3 Mode 2 (1GHz-18GHz)-V _ S08aa (Fingerprint edition mainly supply) + BA02

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
5024.0475	48.20	---	74.00	25.80	500.0	1000.0	111.0	V	359.0	12.9
5024.0475	---	35.62	54.00	18.38	500.0	1000.0	111.0	V	359.0	12.9
6478.2137	---	38.39	54.00	15.61	500.0	1000.0	115.0	V	192.0	17.1
6478.2137	50.64	---	74.00	23.36	500.0	1000.0	115.0	V	192.0	17.1
7015.2675	---	40.32	54.00	13.68	500.0	1000.0	206.0	V	1.0	19.6
7015.2675	53.13	---	74.00	20.87	500.0	1000.0	206.0	V	1.0	19.6
7510.6950	54.75	---	74.00	19.25	500.0	1000.0	115.0	V	192.0	21.3
7510.6950	---	41.60	54.00	12.40	500.0	1000.0	115.0	V	192.0	21.3
7967.1300	---	42.68	54.00	11.32	500.0	1000.0	200.0	V	102.0	22.4
7967.1300	55.95	---	74.00	18.05	500.0	1000.0	200.0	V	102.0	22.4
17925.103	---	47.87	54.00	6.13	500.0	1000.0	215.0	V	123.0	30.3
17925.103	60.32	---	74.00	13.68	500.0	1000.0	215.0	V	123.0	30.3

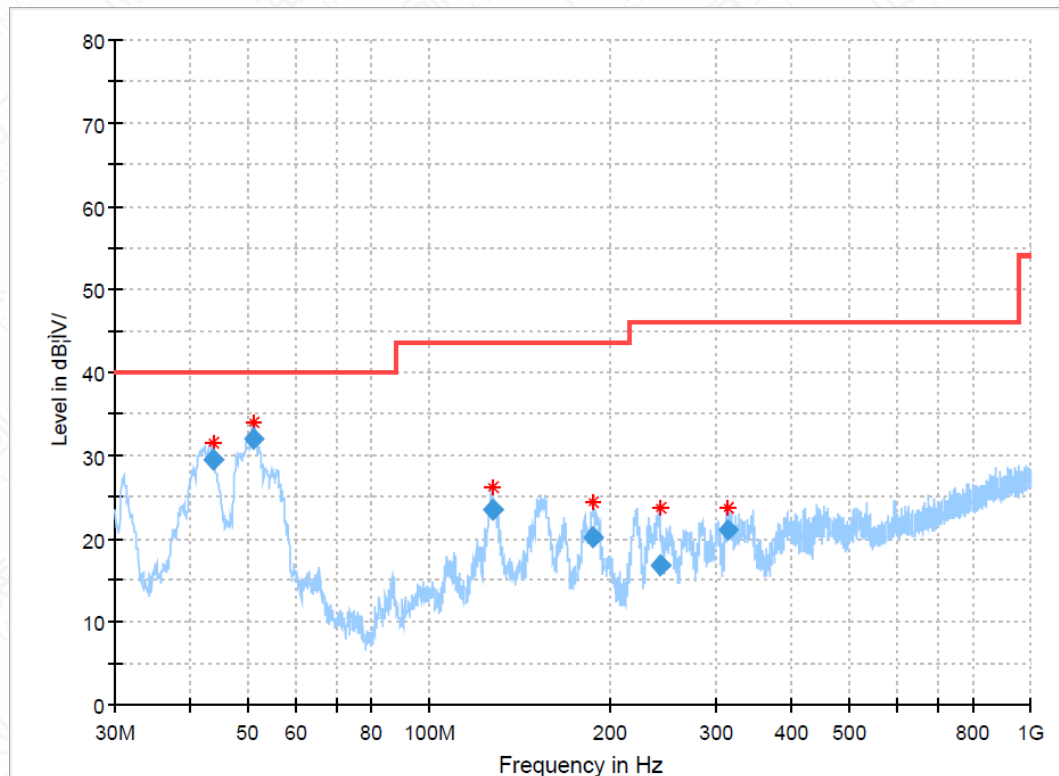


Figure A.1-4 Mode 7 (30M-1GHz) _ S16aa (Fingerprint edition secondary supply) + BB02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
43.791040	29.46	40.00	10.54	100.0	V	358.0	-12.1
50.935000	31.96	40.00	8.04	100.0	V	61.0	-11.6
127.399520	23.50	43.50	20.00	100.0	V	108.0	-15.7
187.106600	20.10	43.50	23.40	100.0	V	73.0	-13.7
242.009720	16.68	46.00	29.32	100.0	V	144.0	-11.1
313.238720	20.96	46.00	25.04	100.0	H	273.0	-9.6

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

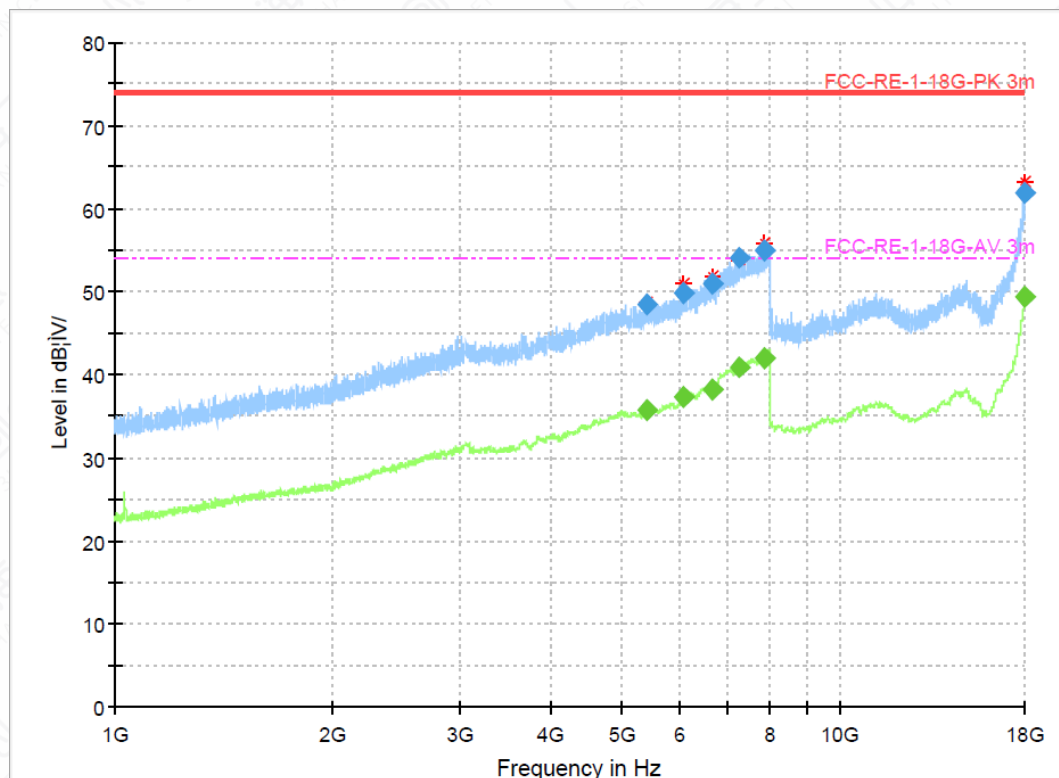


Figure A.1-5 Mode 6 (1GHz-18GHz)-H_S16aa (Fingerprint edition secondary supply) + BB02

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
5415.1237	---	35.72	54.00	18.28	500.0	1000.0	115.0	H	1.0	13.9
5415.1237	48.58	---	74.00	25.42	500.0	1000.0	115.0	H	1.0	13.9
6081.3737	49.90	---	74.00	24.10	500.0	1000.0	115.0	H	40.0	16.1
6081.3737	---	37.35	54.00	16.65	500.0	1000.0	115.0	H	40.0	16.1
6662.7412	50.85	---	74.00	23.15	500.0	1000.0	115.0	H	299.0	17.4
6662.7412	---	38.27	54.00	15.73	500.0	1000.0	115.0	H	299.0	17.4
7265.5200	54.05	---	74.00	19.95	500.0	1000.0	215.0	H	263.0	20.2
7265.5200	---	40.81	54.00	13.19	500.0	1000.0	215.0	H	263.0	20.2
7874.5687	---	42.10	54.00	11.90	500.0	1000.0	210.0	H	198.0	22.0
7874.5687	54.87	---	74.00	19.13	500.0	1000.0	210.0	H	198.0	22.0
17998.083	61.98	---	74.00	12.02	500.0	1000.0	115.0	H	3.0	31.4
17998.083	---	49.41	54.00	4.59	500.0	1000.0	115.0	H	3.0	31.4

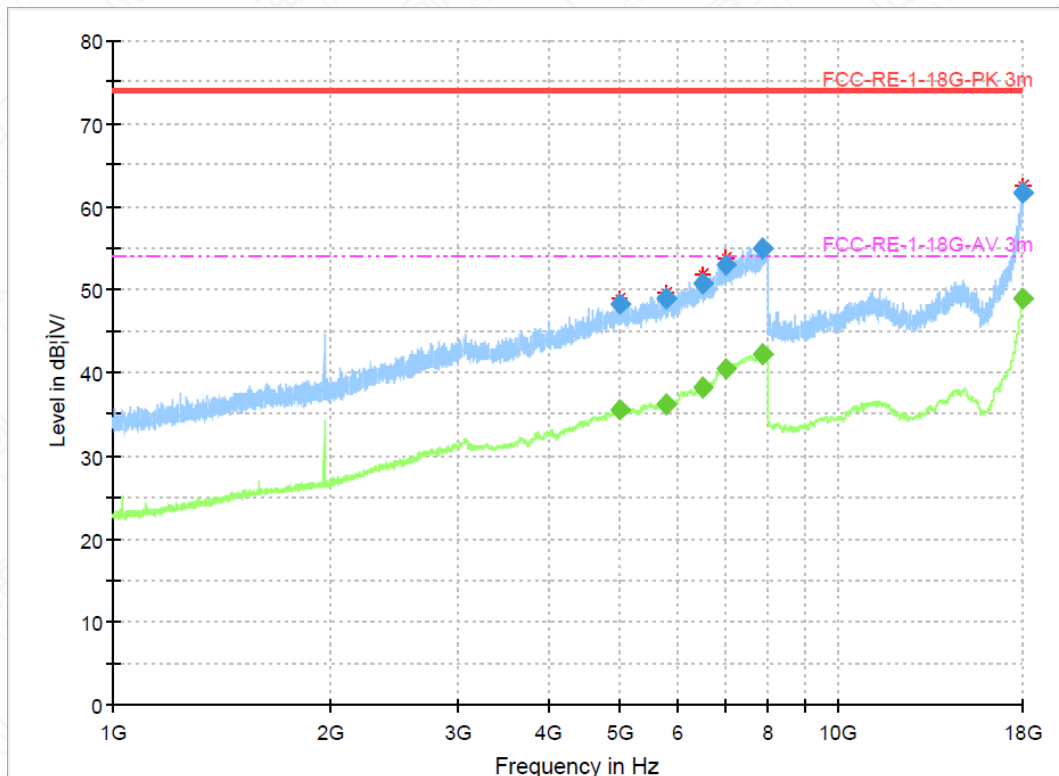


Figure A.1-6 Mode 6 (1GHz-18GHz)-V_S16aa (Fingerprint edition secondary supply) + BB02

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
5007.3075	---	35.59	54.00	18.41	500.0	1000.0	115.0	V	329.0	12.9
5007.3075	48.32	---	74.00	25.68	500.0	1000.0	115.0	V	329.0	12.9
5787.9312	---	36.19	54.00	17.81	500.0	1000.0	115.0	V	134.0	14.8
5787.9312	48.89	---	74.00	25.11	500.0	1000.0	115.0	V	134.0	14.8
6493.8287	---	38.25	54.00	15.75	500.0	1000.0	206.0	V	160.0	17.1
6493.8287	50.76	---	74.00	23.24	500.0	1000.0	206.0	V	160.0	17.1
7016.7912	53.03	---	74.00	20.97	500.0	1000.0	115.0	V	134.0	19.6
7016.7912	---	40.43	54.00	13.57	500.0	1000.0	115.0	V	134.0	19.6
7860.3337	---	42.13	54.00	11.87	500.0	1000.0	111.0	V	329.0	21.9
7860.3337	54.89	---	74.00	19.11	500.0	1000.0	111.0	V	329.0	21.9
17975.822	61.59	---	74.00	12.41	500.0	1000.0	115.0	V	3.0	31.1
17975.822	---	48.85	54.00	5.15	500.0	1000.0	115.0	V	3.0	31.1

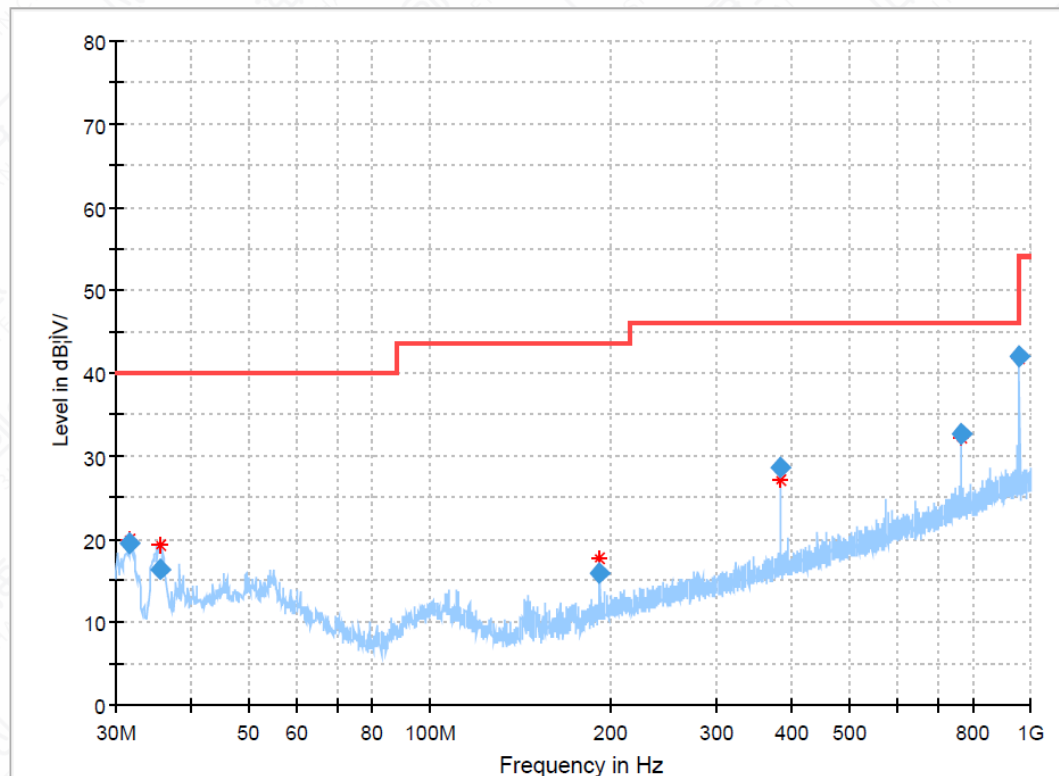


Figure A.1-7 Mode 3 (30M-1GHz) _ S08aa (Fingerprint edition mainly supply) + BC02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
31.596320	19.41	40.00	20.59	100.0	V	197.0	-15.2
35.518640	16.38	40.00	23.62	100.0	V	91.0	-14.4
191.977400	15.83	43.50	27.67	100.0	V	326.0	-13.2
384.010600	28.53	46.00	17.47	100.0	H	123.0	-7.6
767.976040	32.63	46.00	13.37	100.0	H	159.0	-0.4
959.994120	41.96	46.00	4.04	100.0	H	309.0	2.2

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

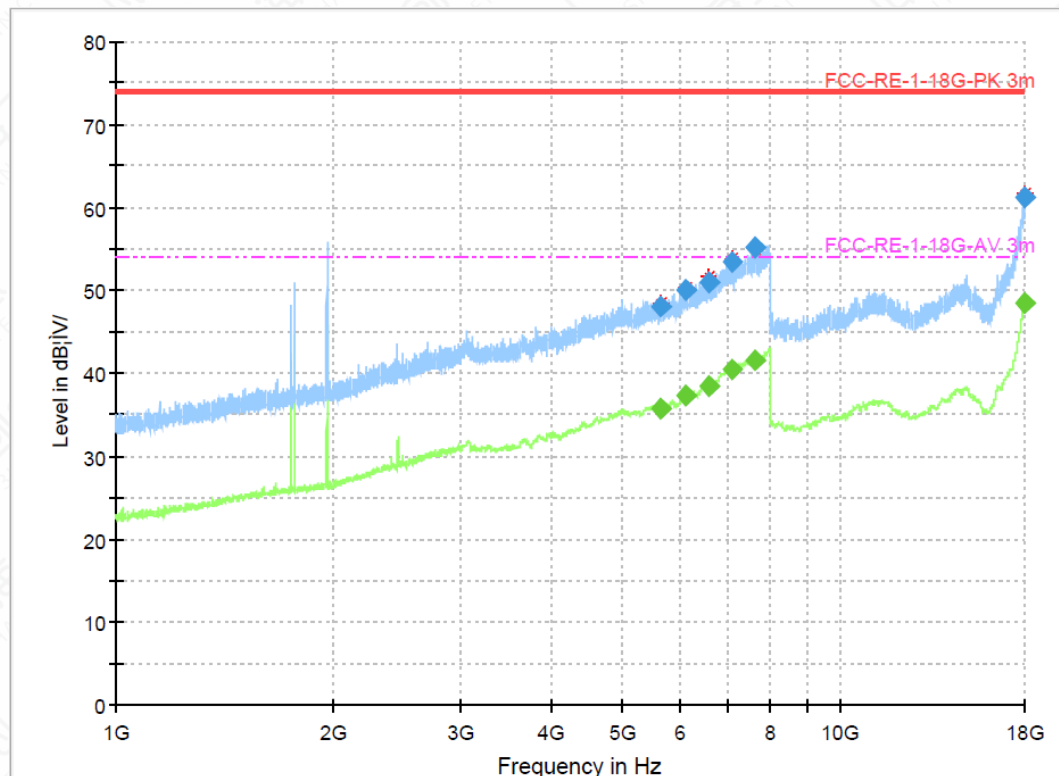


Figure A.1-8 Mode 2 (1GHz-18GHz)-H_S08aa (Fingerprint edition mainly supply) + BC02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
5669.9125	---	35.75	54.00	18.25	500.0	1000.0	211.0	H	257.0	14.3
5669.9125	48.07	---	74.00	25.93	500.0	1000.0	211.0	H	257.0	14.3
6135.3500	49.97	---	74.00	24.03	500.0	1000.0	115.0	H	104.0	16.1
6135.3500	---	37.31	54.00	16.69	500.0	1000.0	115.0	H	104.0	16.1
6592.4700	51.04	---	74.00	22.96	500.0	1000.0	215.0	H	192.0	17.4
6592.4700	---	38.42	54.00	15.58	500.0	1000.0	215.0	H	192.0	17.4
7080.0500	53.38	---	74.00	20.62	500.0	1000.0	215.0	H	127.0	19.6
7080.0500	---	40.41	54.00	13.59	500.0	1000.0	215.0	H	127.0	19.6
7621.5487	---	41.67	54.00	12.33	500.0	1000.0	215.0	H	0.0	21.5
7621.5487	55.21	---	74.00	18.79	500.0	1000.0	215.0	H	0.0	21.5
17960.575	61.33	---	74.00	12.67	500.0	1000.0	185.0	H	245.0	30.8
17960.575	---	48.51	54.00	5.49	500.0	1000.0	185.0	H	245.0	30.8

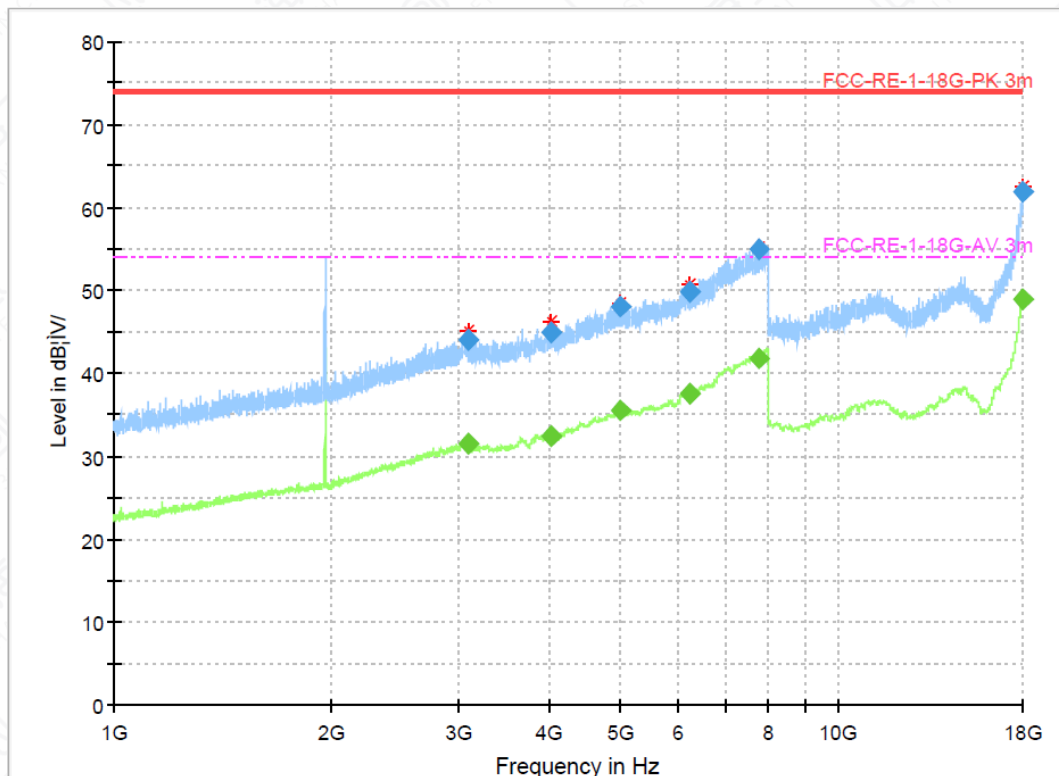


Figure A.1-9 Mode 2 (1GHz-18GHz)-V_S08aa (Fingerprint edition mainly supply) + BC02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
3078.5112	---	31.44	54.00	22.56	500.0	1000.0	115.0	V	186.0	7.9
3078.5112	44.03	---	74.00	29.97	500.0	1000.0	115.0	V	186.0	7.9
4011.0900	44.87	---	74.00	29.13	500.0	1000.0	215.0	V	226.0	9.5
4011.0900	---	32.36	54.00	21.64	500.0	1000.0	215.0	V	226.0	9.5
4991.1487	---	35.46	54.00	18.54	500.0	1000.0	115.0	V	358.0	12.9
4991.1487	47.99	---	74.00	26.01	500.0	1000.0	115.0	V	358.0	12.9
6252.9287	---	37.52	54.00	16.48	500.0	1000.0	111.0	V	186.0	16.2
6252.9287	49.80	---	74.00	24.20	500.0	1000.0	111.0	V	186.0	16.2
7756.5962	54.89	---	74.00	19.11	500.0	1000.0	188.0	V	226.0	21.6
7756.5962	---	41.75	54.00	12.25	500.0	1000.0	188.0	V	226.0	21.6
17982.242	---	49.04	54.00	4.96	500.0	1000.0	215.0	V	115.0	31.2
17982.242	61.95	---	74.00	12.05	500.0	1000.0	215.0	V	115.0	31.2

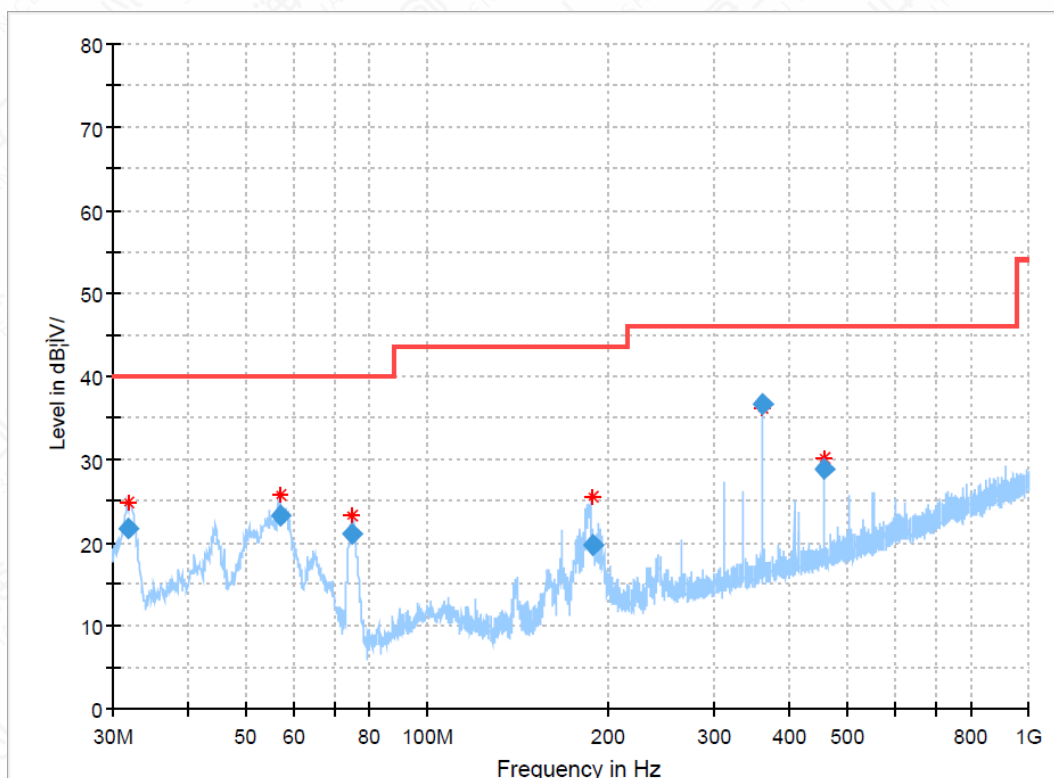


Figure A.1-10 Mode 2 (30M-1GHz) _ S03aa (Standard edition mainly supply) + BA02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
31.745120	21.62	40.00	18.38	100.0	V	251.0	-15.2
56.918920	23.30	40.00	16.70	100.0	V	99.0	-12.4
75.083640	21.00	40.00	19.00	100.0	V	298.0	-16.9
188.008000	19.55	43.50	23.95	200.0	H	84.0	-13.6
360.002640	36.71	46.00	9.29	100.0	H	170.0	-8.3
455.984880	28.76	46.00	17.24	200.0	H	152.0	-6.3

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

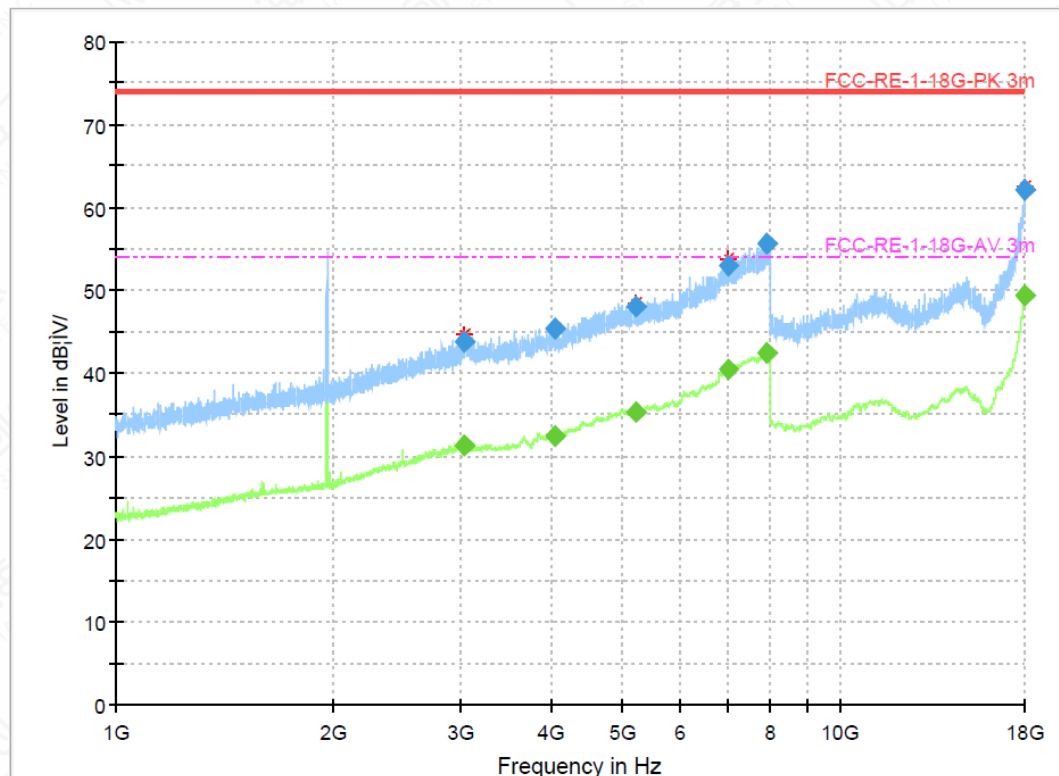


Figure A.1-11 Mode 1 (1GHz-18GHz)-H _ S03aa (Standard edition mainly supply) + BA02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
3034.7250	---	31.22	54.00	22.78	500.0	1000.0	188.0	H	30.0	8.0
3034.7250	43.86	---	74.00	30.14	500.0	1000.0	188.0	H	30.0	8.0
4042.3800	---	32.47	54.00	21.53	500.0	1000.0	215.0	H	1.0	9.5
4042.3800	45.40	---	74.00	28.60	500.0	1000.0	215.0	H	1.0	9.5
5211.6737	---	35.30	54.00	18.70	500.0	1000.0	188.0	H	227.0	13.2
5211.6737	47.95	---	74.00	26.05	500.0	1000.0	188.0	H	227.0	13.2
6988.5162	53.04	---	74.00	20.96	500.0	1000.0	215.0	H	1.0	19.6
6988.5162	---	40.53	54.00	13.47	500.0	1000.0	215.0	H	1.0	19.6
7935.0225	55.67	---	74.00	18.33	500.0	1000.0	115.0	H	316.0	22.3
7935.0225	---	42.47	54.00	11.53	500.0	1000.0	115.0	H	316.0	22.3
17997.076	---	49.38	54.00	4.62	500.0	1000.0	200.0	H	355.0	31.4
17997.076	62.05	---	74.00	11.95	500.0	1000.0	200.0	H	355.0	31.4

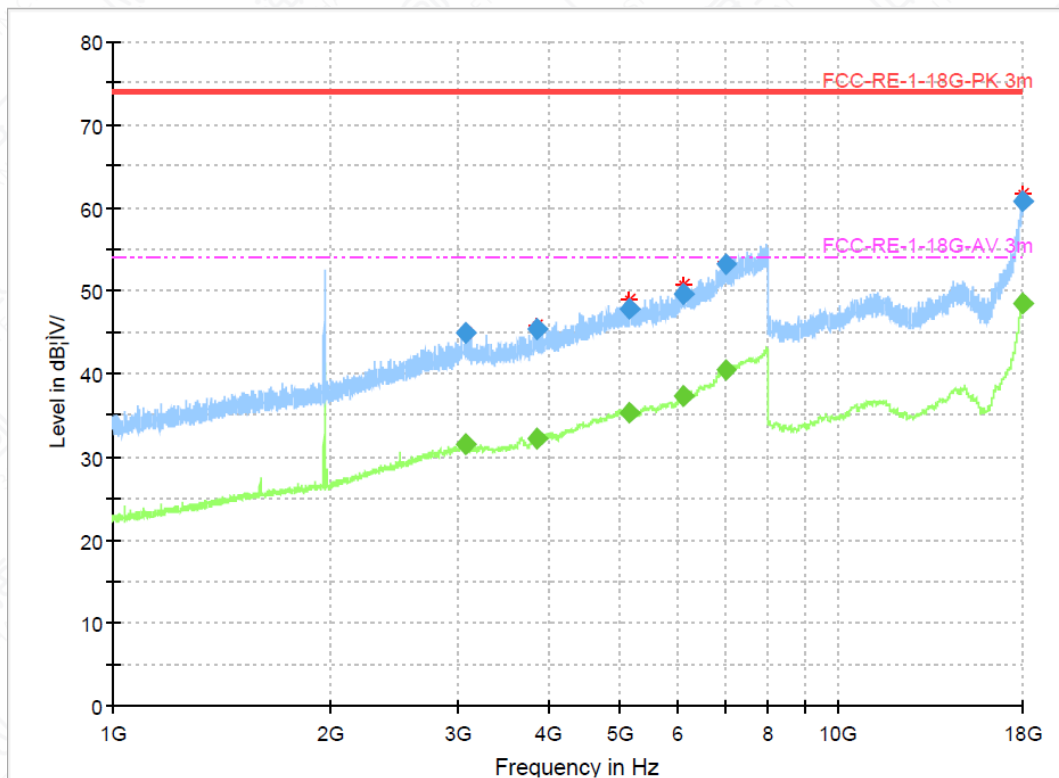


Figure A.1-12 Mode 1 (1GHz-18GHz)-V _ S03aa (Standard edition mainly supply) + BA02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwi dth (kHz)	Height (cm)	Pol	Azim uth (deg)	Corr. (Db)
3071.0437	---	31.56	54.00	22.44	500.0	1000.0	115.0	V	128.0	7.9
3071.0437	45.02	---	74.00	28.98	500.0	1000.0	115.0	V	128.0	7.9
3853.6900	---	32.25	54.00	21.75	500.0	1000.0	100.0	V	128.0	8.9
3853.6900	45.43	---	74.00	28.57	500.0	1000.0	100.0	V	128.0	8.9
5170.9687	47.81	---	74.00	26.19	500.0	1000.0	100.0	V	359.0	13.1
5170.9687	---	35.42	54.00	18.58	500.0	1000.0	100.0	V	359.0	13.1
6130.9550	---	37.36	54.00	16.64	500.0	1000.0	115.0	V	359.0	16.1
6130.9550	49.72	---	74.00	24.28	500.0	1000.0	115.0	V	359.0	16.1
6999.4012	53.24	---	74.00	20.76	500.0	1000.0	100.0	V	261.0	19.6
6999.4012	---	40.37	54.00	13.63	500.0	1000.0	100.0	V	261.0	19.6
17955.533	---	48.48	54.00	5.52	500.0	1000.0	215.0	V	257.0	30.7
17955.533	60.75	---	74.00	13.25	500.0	1000.0	215.0	V	257.0	30.7

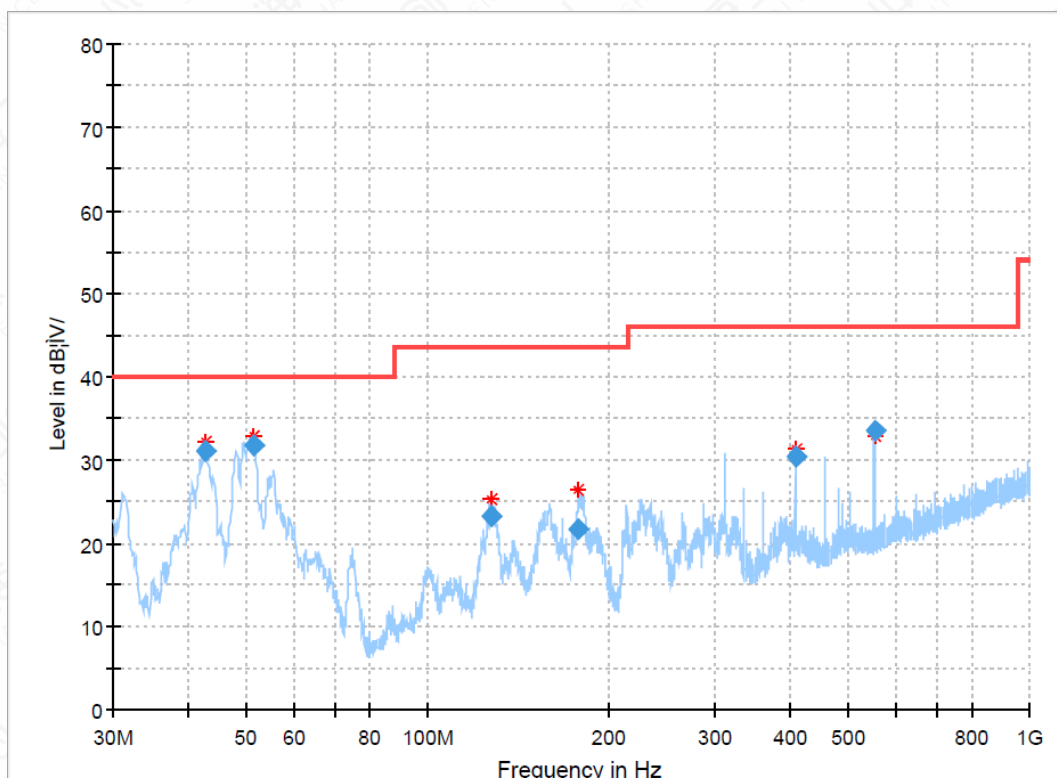


Figure A.1-13 Mode 7 (30M-1GHz) _ S06aa (Standard edition secondary supply) + BB02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
42.816200	30.97	40.00	9.03	100.0	V	285.0	-12.3
51.384200	31.63	40.00	8.37	100.0	V	297.0	-11.7
127.479120	23.23	43.50	20.27	100.0	V	146.0	-15.7
177.738600	21.65	43.50	21.85	200.0	H	52.0	-14.8
407.994720	30.48	46.00	15.52	100.0	H	145.0	-7.2
551.988920	33.43	46.00	12.57	200.0	H	165.0	-4.6

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

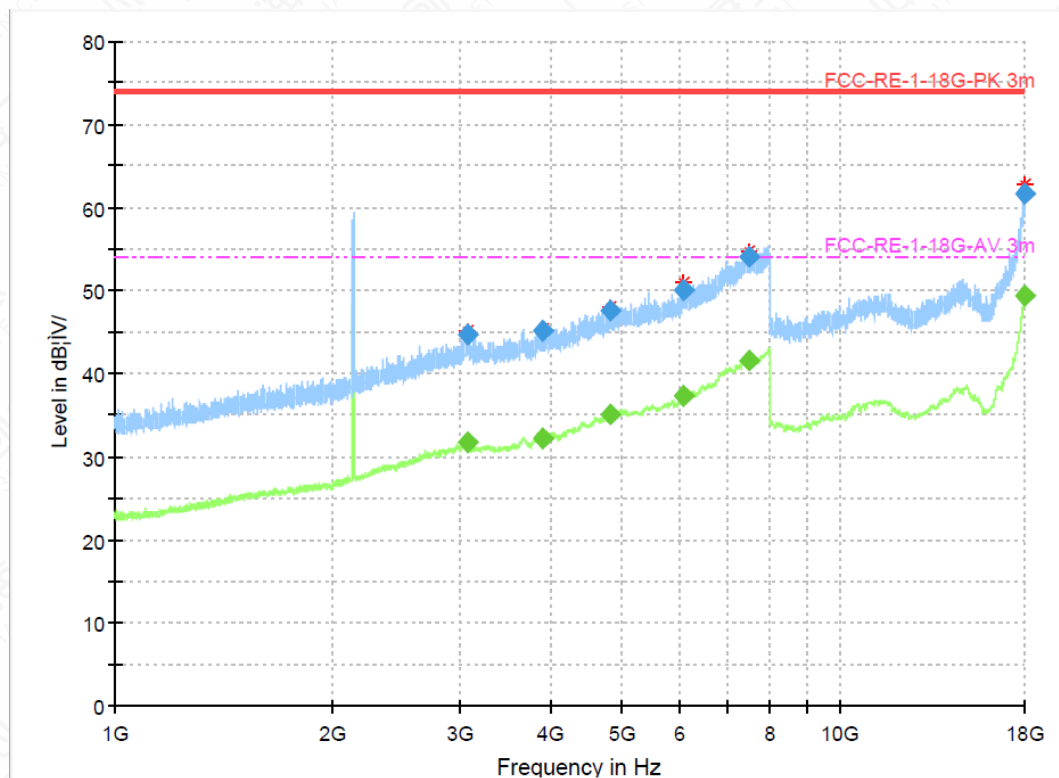


Figure A.1-14 Mode 7 (1GHz-18GHz)-H_S06aa (Standard edition secondary supply) + BB02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
3067.8350	44.72	---	74.00	29.28	500.0	1000.0	115.0	H	200.0	7.9
3067.8350	---	31.74	54.00	22.26	500.0	1000.0	115.0	H	200.0	7.9
3887.7137	---	32.24	54.00	21.76	500.0	1000.0	115.0	H	331.0	9.2
3887.7137	45.19	---	74.00	28.81	500.0	1000.0	115.0	H	331.0	9.2
4821.0737	---	35.12	54.00	18.88	500.0	1000.0	115.0	H	134.0	12.2
4821.0737	47.65	---	74.00	26.35	500.0	1000.0	115.0	H	134.0	12.2
6082.9150	50.03	---	74.00	23.97	500.0	1000.0	115.0	H	267.0	16.1
6082.9150	---	37.39	54.00	16.61	500.0	1000.0	115.0	H	267.0	16.1
7496.8412	54.03	---	74.00	19.97	500.0	1000.0	215.0	H	355.0	21.3
7496.8412	---	41.65	54.00	12.35	500.0	1000.0	215.0	H	355.0	21.3
17995.881	61.66	---	74.00	12.34	500.0	1000.0	115.0	H	357.0	31.4
17995.881	---	49.34	54.00	4.66	500.0	1000.0	115.0	H	357.0	31.4

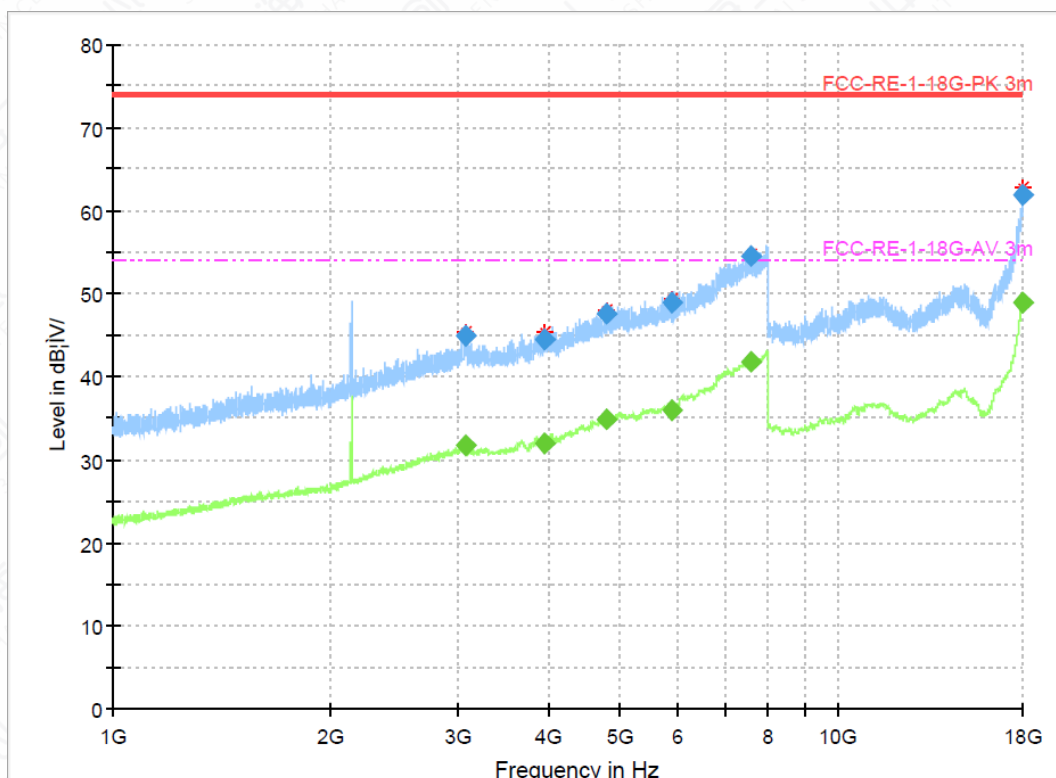


Figure A.1-15 Mode 7 (1GHz-18GHz)-V _ S06aa (Standard edition secondary supply) + BB02

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
3066.3950	---	31.77	54.00	22.23	500.0	1000.0	115.0	V	92.0	7.9
3066.3950	44.81	---	74.00	29.19	500.0	1000.0	115.0	V	92.0	7.9
3930.1300	44.46	---	74.00	29.54	500.0	1000.0	215.0	V	195.0	9.5
3930.1300	---	31.95	54.00	22.05	500.0	1000.0	215.0	V	195.0	9.5
4806.6762	---	34.89	54.00	19.11	500.0	1000.0	115.0	V	159.0	12.1
4806.6762	47.58	---	74.00	26.42	500.0	1000.0	115.0	V	159.0	12.1
5918.9225	---	36.07	54.00	17.93	500.0	1000.0	115.0	V	159.0	15.0
5918.9225	48.84	---	74.00	25.16	500.0	1000.0	115.0	V	159.0	15.0
7581.1300	---	41.82	54.00	12.18	500.0	1000.0	103.0	V	224.0	21.5
7581.1300	54.43	---	74.00	19.57	500.0	1000.0	103.0	V	224.0	21.5
17980.746	61.79	---	74.00	12.21	500.0	1000.0	115.0	V	130.0	31.1
17980.746	---	49.02	54.00	4.98	500.0	1000.0	115.0	V	130.0	31.1

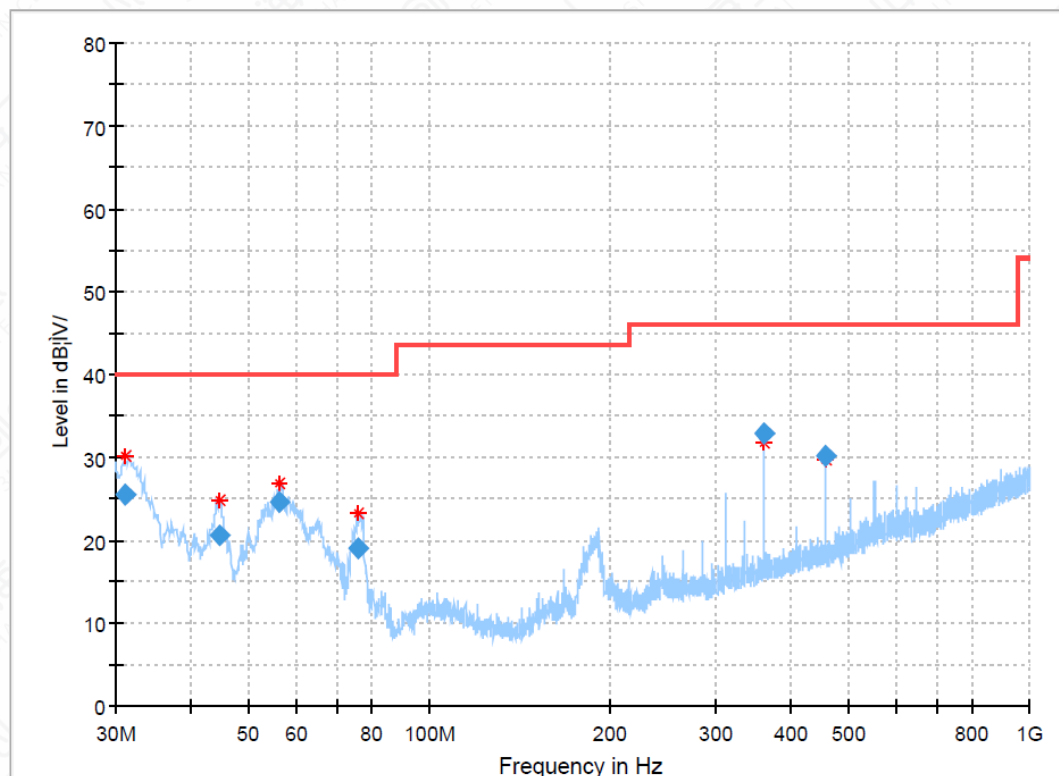


Figure A.1-16 Mode 2 (30M-1GHz) _ S03aa (Standard edition mainly supply) + BC02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
31.069240	25.57	40.00	14.43	100.0	V	286.0	-15.2
44.747360	20.45	40.00	19.55	100.0	V	191.0	-11.9
56.298480	24.48	40.00	15.52	100.0	V	51.0	-12.3
76.328040	18.91	40.00	21.09	100.0	V	134.0	-17.2
359.998080	32.90	46.00	13.10	100.0	H	157.0	-8.3
456.007320	30.15	46.00	15.85	100.0	H	169.0	-6.3

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

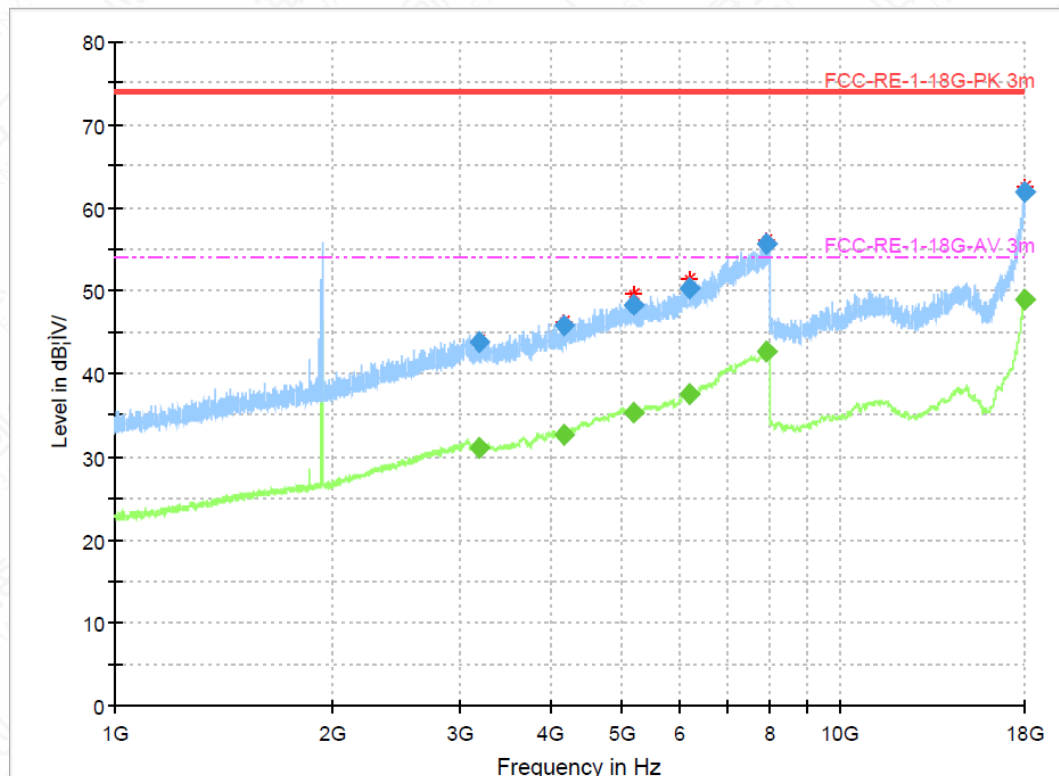


Figure A.1-17 Mode 1 (1GHz-18GHz)-H _ S03aa (Standard edition mainly supply) + BC02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
3173.2512	---	31.03	54.00	22.97	500.0	1000.0	103.0	H	69.0	7.6
3173.2512	43.70	---	74.00	30.30	500.0	1000.0	103.0	H	69.0	7.6
4152.9087	---	32.71	54.00	21.29	500.0	1000.0	115.0	H	134.0	9.8
4152.9087	45.73	---	74.00	28.27	500.0	1000.0	115.0	H	134.0	9.8
5207.6712	48.24	---	74.00	25.76	500.0	1000.0	215.0	H	98.0	13.2
5207.6712	---	35.27	54.00	18.73	500.0	1000.0	215.0	H	98.0	13.2
6216.9512	---	37.61	54.00	16.39	500.0	1000.0	100.0	H	326.0	16.2
6216.9512	50.39	---	74.00	23.61	500.0	1000.0	100.0	H	326.0	16.2
7939.0987	55.53	---	74.00	18.47	500.0	1000.0	215.0	H	1.0	22.3
7939.0987	---	42.58	54.00	11.42	500.0	1000.0	215.0	H	1.0	22.3
17969.640	---	48.83	54.00	5.17	500.0	1000.0	199.0	H	358.0	31.0
17969.640	61.93	---	74.00	12.07	500.0	1000.0	199.0	H	358.0	31.0

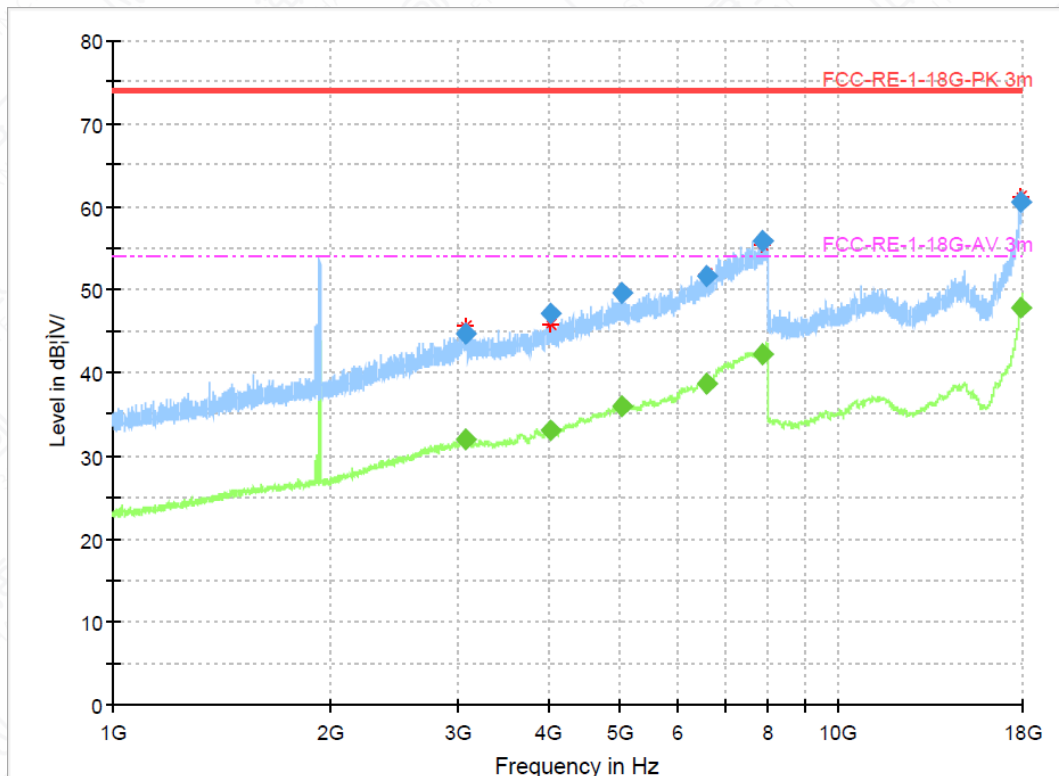


Figure A.1-18 Mode 1 (1GHz-18GHz)-V _ S03aa (Standard edition mainly supply) + BC02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwi dth (kHz)	Height (cm)	Pol	Azim uth (deg)	Corr. (Db)
3058.0575	44.67	---	74.00	29.33	500.0	1000.0	215.0	V	314.0	7.9
3058.0575	---	31.89	54.00	22.11	500.0	1000.0	215.0	V	314.0	7.9
4020.2212	47.08	---	74.00	26.92	500.0	1000.0	115.0	V	109.0	9.5
4020.2212	---	33.00	54.00	21.00	500.0	1000.0	115.0	V	109.0	9.5
5043.4287	49.62	---	74.00	24.38	500.0	1000.0	185.0	V	186.0	13.0
5043.4287	---	36.03	54.00	17.97	500.0	1000.0	185.0	V	186.0	13.0
6575.9925	---	38.72	54.00	15.28	500.0	1000.0	210.0	V	186.0	17.3
6575.9925	51.68	---	74.00	22.32	500.0	1000.0	210.0	V	186.0	17.3
7855.1987	55.87	---	74.00	18.13	500.0	1000.0	205.0	V	186.0	21.9
7855.1987	---	42.27	54.00	11.73	500.0	1000.0	205.0	V	186.0	21.9
17898.781	---	47.79	54.00	6.21	500.0	1000.0	215.0	V	355.0	29.9
17898.781	60.47	---	74.00	13.53	500.0	1000.0	215.0	V	355.0	29.9

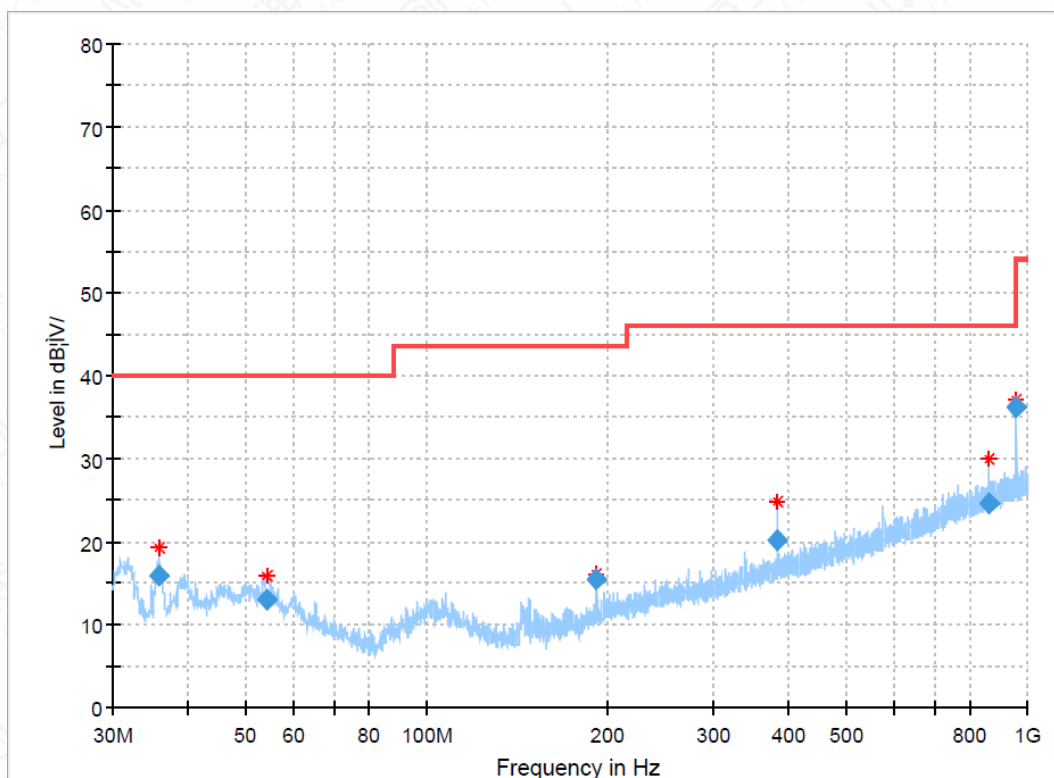


Figure A.19-1 Mode 3 (30M-1GHz) _ S26aa (Scan edition mainly supply) + BA02

Frequency (MHz)	QuasiPeak (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
35.877960	15.83	40.00	24.17	100.0	V	282.0	-14.3
54.023120	12.86	40.00	27.14	100.0	V	10.0	-12.1
192.013360	15.51	43.50	27.99	100.0	V	347.0	-13.2
383.976160	20.00	46.00	26.00	200.0	H	352.0	-7.6
865.523760	24.68	46.00	21.32	100.0	H	201.0	1.1
959.982000	36.22	46.00	9.78	100.0	H	129.0	2.2

Note:

- Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

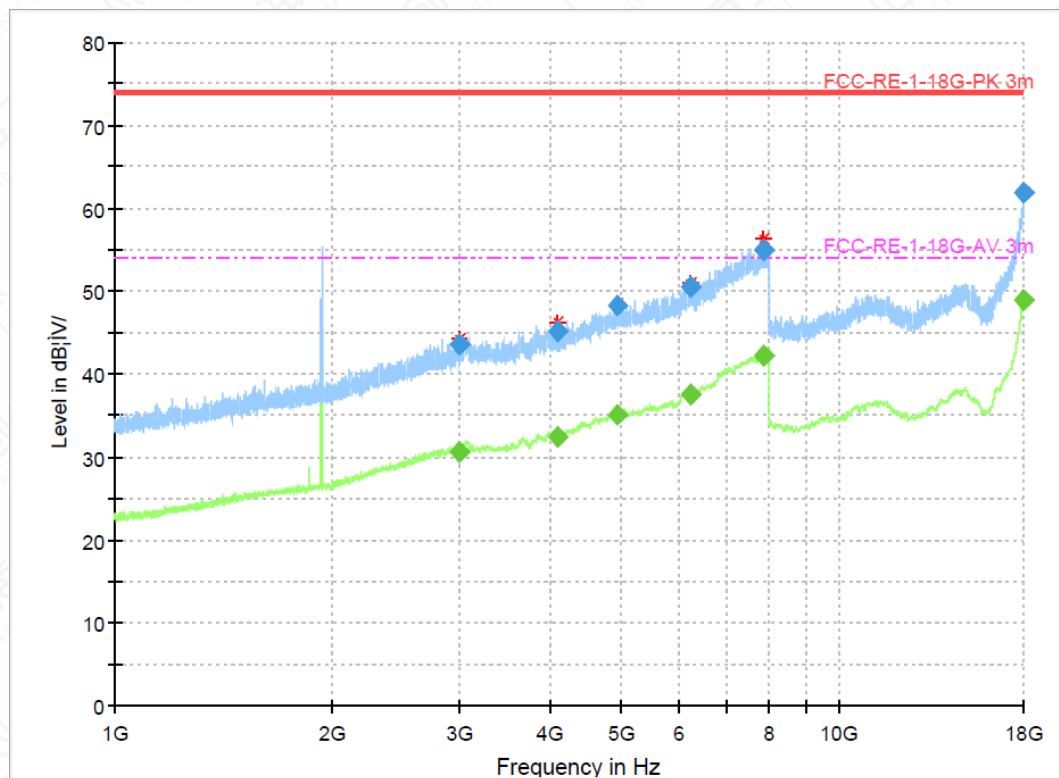


Figure A.1-20 Mode 1 (1GHz-18GHz)-H _ S26aa (Scan edition mainly supply) + BA02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
2998.1337	43.61	---	74.00	30.39	500.0	1000.0	115.0	H	7.0	6.9
2998.1337	---	30.69	54.00	23.31	500.0	1000.0	115.0	H	7.0	6.9
4086.3150	---	32.42	54.00	21.58	500.0	1000.0	210.0	H	169.0	9.6
4086.3150	45.08	---	74.00	28.92	500.0	1000.0	210.0	H	169.0	9.6
4941.0912	48.36	---	74.00	25.64	500.0	1000.0	115.0	H	330.0	12.6
4941.0912	---	35.14	54.00	18.86	500.0	1000.0	115.0	H	330.0	12.6
6233.7400	50.60	---	74.00	23.40	500.0	1000.0	100.0	H	265.0	16.2
6233.7400	---	37.63	54.00	16.37	500.0	1000.0	100.0	H	265.0	16.2
7895.5850	54.94	---	74.00	19.06	500.0	1000.0	210.0	H	299.0	22.1
7895.5850	---	42.29	54.00	11.71	500.0	1000.0	210.0	H	299.0	22.1
17973.460	---	48.87	54.00	5.13	500.0	1000.0	115.0	H	2.0	31.0
17973.460	61.96	---	74.00	12.04	500.0	1000.0	115.0	H	2.0	31.0

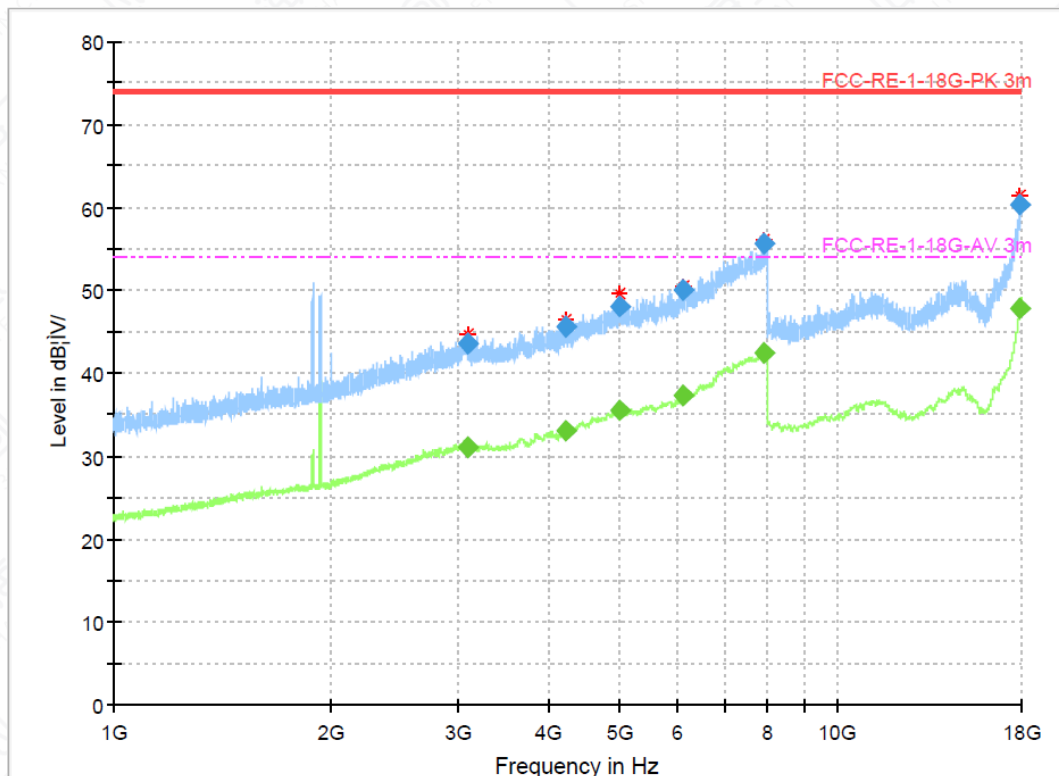


Figure A.1-21 Mode 1 (1GHz-18GHz)-V _ S26aa (Scan edition mainly supply) + BA02

Note: The frequency over the limits is the main signal frequency.

Frequency (MHz)	MaxPeak (DbμV/m)	Average (DbμV/m)	Limit (DbμV/m)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (Db)
3090.6312	---	31.06	54.00	22.94	500.0	1000.0	215.0	V	291.0	7.9
3090.6312	43.59	---	74.00	30.41	500.0	1000.0	215.0	V	291.0	7.9
4215.5675	---	33.01	54.00	20.99	500.0	1000.0	215.0	V	227.0	10.0
4215.5675	45.69	---	74.00	28.31	500.0	1000.0	215.0	V	227.0	10.0
5018.4912	---	35.64	54.00	18.36	500.0	1000.0	115.0	V	200.0	12.9
5018.4912	48.13	---	74.00	25.87	500.0	1000.0	115.0	V	200.0	12.9
6119.6662	50.12	---	74.00	23.88	500.0	1000.0	185.0	V	1.0	16.1
6119.6662	---	37.29	54.00	16.71	500.0	1000.0	185.0	V	1.0	16.1
7947.3500	---	42.54	54.00	11.46	500.0	1000.0	115.0	V	264.0	22.3
7947.3500	55.65	---	74.00	18.35	500.0	1000.0	115.0	V	264.0	22.3
17917.535	60.28	---	74.00	13.72	500.0	1000.0	210.0	V	249.0	30.2
17917.535	---	47.86	54.00	6.14	500.0	1000.0	210.0	V	249.0	30.2

A.2 Conducted Emission

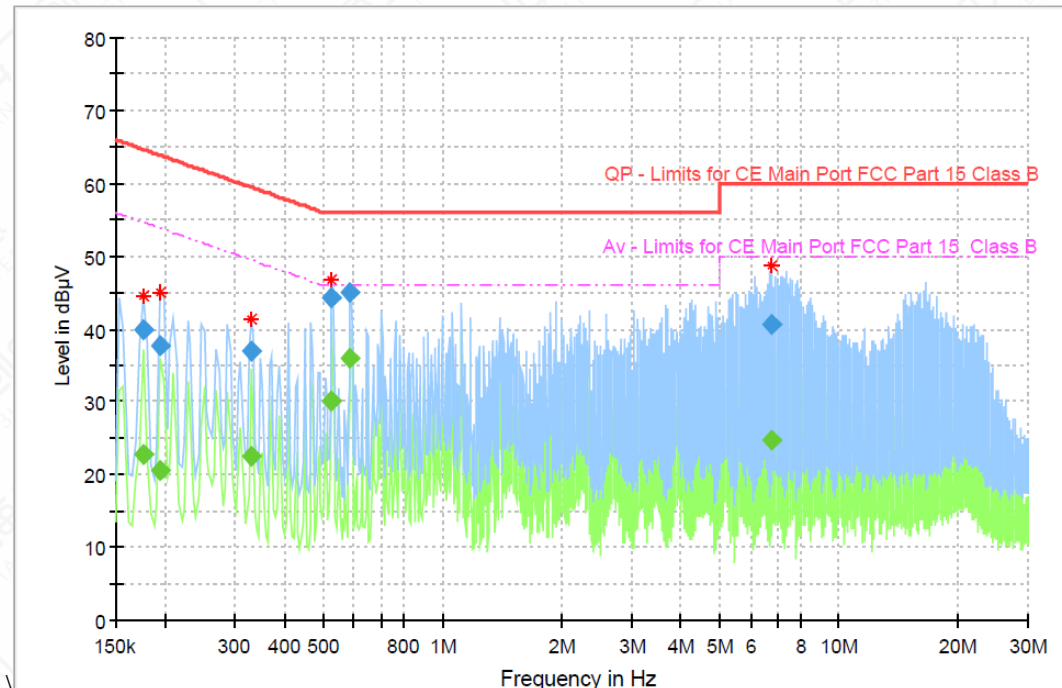


Figure A.2-1 Mode 2 (150kHz-30MHz) _ S08aa (Fingerprint edition mainly supply) + BA02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.176119	39.88	---	64.67	24.79	15000	9.000	N	ON	7.4
0.176119	---	22.83	54.67	31.84	15000	9.000	N	ON	7.4
0.194775	---	20.62	53.83	33.21	15000	9.000	N	ON	6.0
0.194775	37.67	---	63.83	26.16	15000	9.000	N	ON	6.0
0.329100	---	22.57	49.47	26.91	15000	9.000	L1	ON	9.6
0.329100	36.83	---	59.47	22.65	15000	9.000	L1	ON	9.6
0.526856	44.23	---	56.00	11.77	15000	9.000	L1	ON	9.6
0.526856	---	30.04	46.00	15.96	15000	9.000	L1	ON	9.6
0.586556	---	35.90	46.00	10.10	15000	9.000	L1	ON	9.6
0.586556	45.04	---	56.00	10.96	15000	9.000	L1	ON	9.6
6.780431	---	24.82	50.00	25.18	15000	9.000	L1	ON	9.8
6.780431	40.71	---	60.00	19.29	15000	9.000	L1	ON	9.8

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

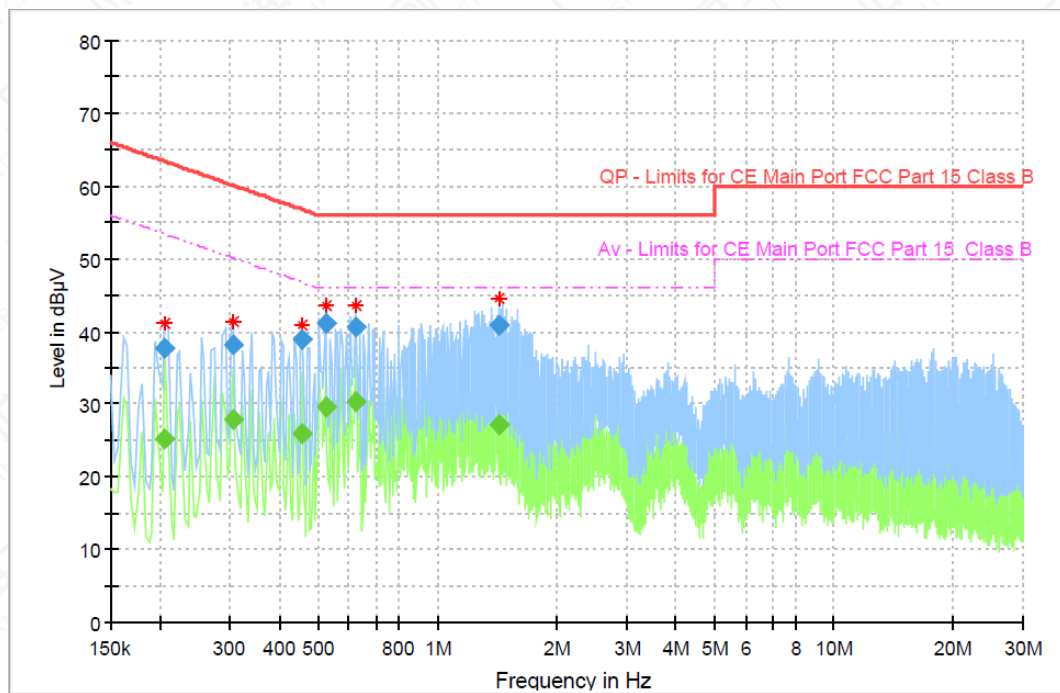


Figure A.2-2 Mode 8 (150kHz-30MHz) _ S16aa (Fingerprint edition secondary supply) + BB02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.205969	---	25.14	53.37	28.23	15000	9.000	L1	ON	9.6
0.205969	37.57	---	63.37	25.80	15000	9.000	L1	ON	9.6
0.306713	---	27.98	50.06	22.08	15000	9.000	L1	ON	9.6
0.306713	38.11	---	60.06	21.95	15000	9.000	L1	ON	9.6
0.455963	---	25.85	46.77	20.92	15000	9.000	L1	ON	9.6
0.455963	38.84	---	56.77	17.92	15000	9.000	L1	ON	9.6
0.523125	---	29.62	46.00	16.38	15000	9.000	L1	ON	9.6
0.523125	41.09	---	56.00	14.91	15000	9.000	L1	ON	9.6
0.620138	---	30.35	46.00	15.65	15000	9.000	L1	ON	9.6
0.620138	40.63	---	56.00	15.37	15000	9.000	L1	ON	9.6
1.433550	---	27.07	46.00	18.93	15000	9.000	N	ON	9.7
1.433550	40.80	---	56.00	15.20	15000	9.000	N	ON	9.7

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

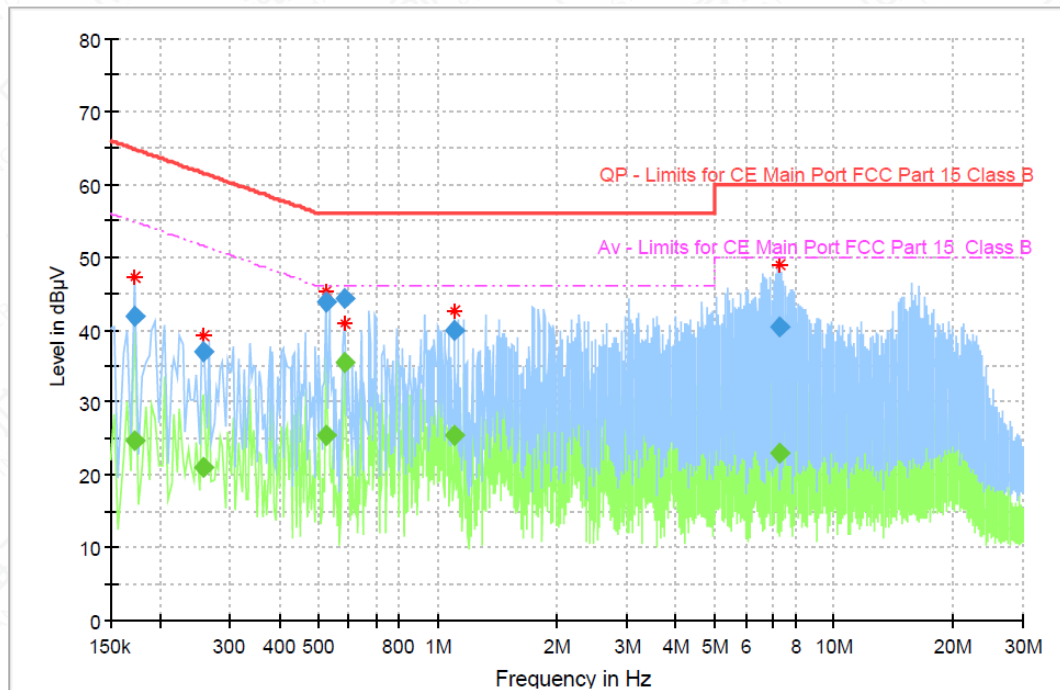


Figure A.2-3 Mode 2 (150kHz-30MHz) _ S08aa (Fingerprint edition mainly supply) + BC02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.172388	41.73	---	64.85	23.12	15000	9.000	N	ON	7.6
0.172388	---	24.73	54.85	30.11	15000	9.000	N	ON	7.6
0.258206	---	21.00	51.49	30.49	15000	9.000	N	ON	6.7
0.258206	37.00	---	61.49	24.49	15000	9.000	N	ON	6.7
0.523125	---	25.37	46.00	20.63	15000	9.000	L1	ON	9.6
0.523125	43.69	---	56.00	12.31	15000	9.000	L1	ON	9.6
0.586556	44.33	---	56.00	11.67	15000	9.000	L1	ON	9.6
0.586556	---	35.37	46.00	10.63	15000	9.000	L1	ON	9.6
1.105200	---	25.39	46.00	20.61	15000	9.000	L1	ON	9.6
1.105200	39.88	---	56.00	16.12	15000	9.000	L1	ON	9.6
7.310269	---	23.08	50.00	26.92	15000	9.000	L1	ON	9.9
7.310269	40.35	---	60.00	19.65	15000	9.000	L1	ON	9.9

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

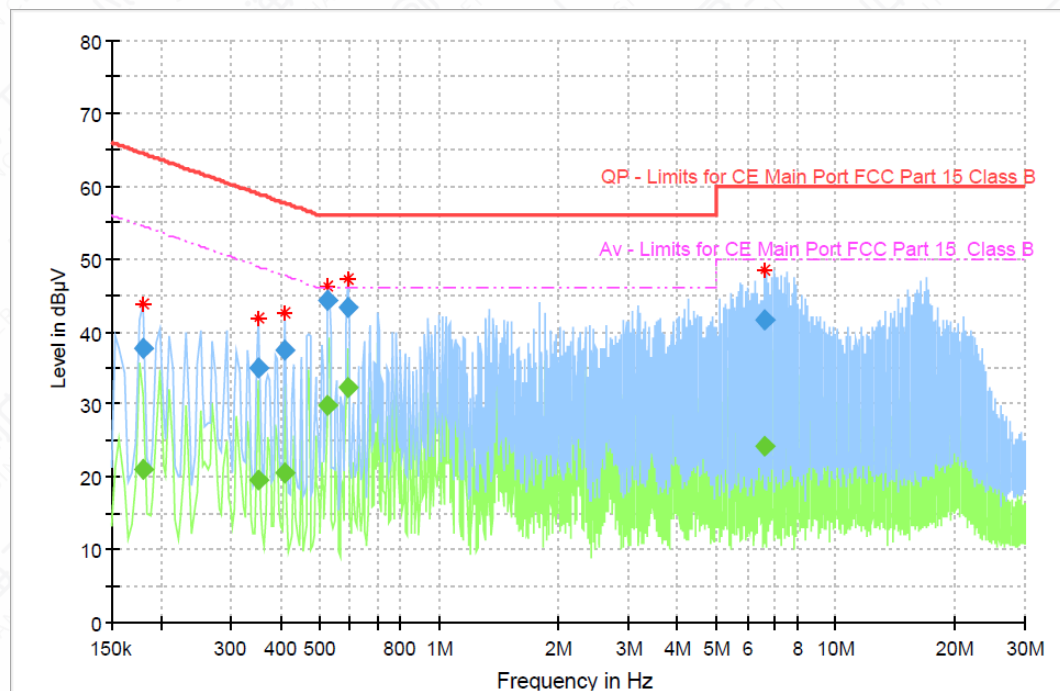


Figure A.2-4 Mode 2 (150kHz-30MHz) _ S03aa (Standard edition mainly supply) + BA02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.179850	37.75	---	64.49	26.75	15000	9.000	N	ON	7.1
0.179850	---	21.13	54.49	33.36	15000	9.000	N	ON	7.1
0.351488	35.03	---	58.93	23.90	15000	9.000	L1	ON	9.6
0.351488	---	19.51	48.93	29.41	15000	9.000	L1	ON	9.6
0.411188	---	20.64	47.62	26.99	15000	9.000	N	ON	8.8
0.411188	37.37	---	57.62	20.25	15000	9.000	N	ON	8.8
0.526856	---	29.73	46.00	16.27	15000	9.000	N	ON	9.6
0.526856	44.19	---	56.00	11.81	15000	9.000	N	ON	9.6
0.590288	43.34	---	56.00	12.66	15000	9.000	L1	ON	9.6
0.590288	---	32.23	46.00	13.77	15000	9.000	L1	ON	9.6
6.627450	41.47	---	60.00	18.53	15000	9.000	L1	ON	9.8
6.627450	---	24.28	50.00	25.72	15000	9.000	L1	ON	9.8

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

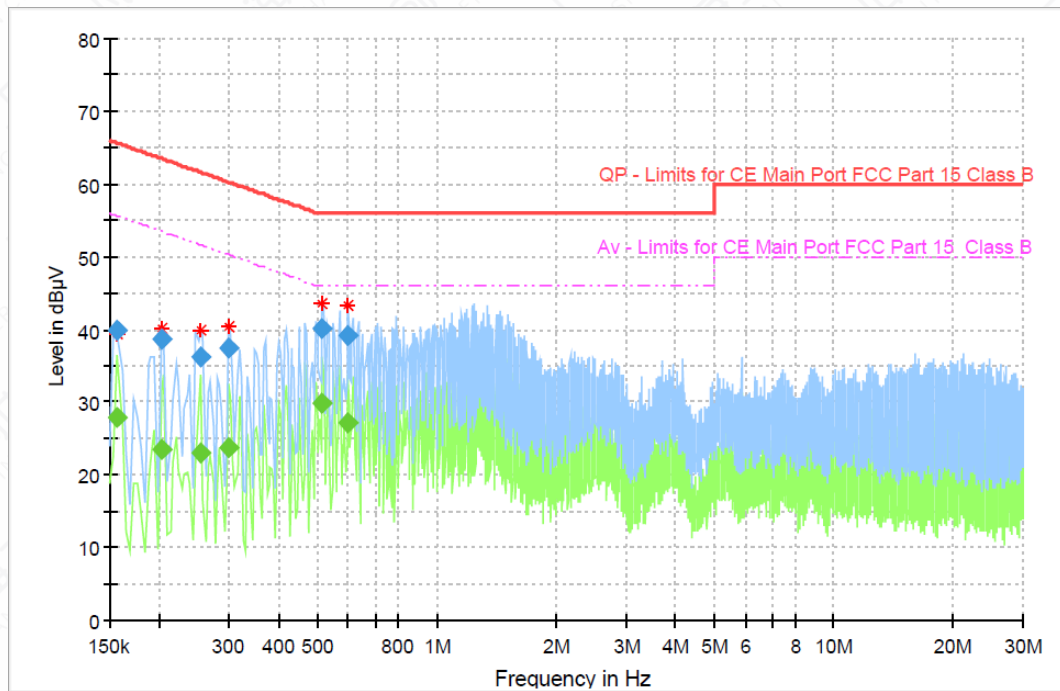


Figure A.2-5 Mode 8 (150kHz-30MHz) _ S06aa (Standard edition secondary supply) + BB02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.157463	39.90	---	65.60	25.70	15000	9.000	N	ON	8.9
0.157463	---	28.00	55.60	27.60	15000	9.000	N	ON	8.9
0.202238	38.66	---	63.52	24.86	15000	9.000	L1	ON	9.6
0.202238	---	23.38	53.52	30.14	15000	9.000	L1	ON	9.6
0.254475	---	22.89	51.61	28.72	15000	9.000	N	ON	6.7
0.254475	36.17	---	61.61	25.44	15000	9.000	N	ON	6.7
0.299250	---	23.71	50.26	26.56	15000	9.000	N	ON	7.4
0.299250	37.52	---	60.26	22.74	15000	9.000	N	ON	7.4
0.515663	---	29.90	46.00	16.10	15000	9.000	N	ON	9.6
0.515663	40.05	---	56.00	15.95	15000	9.000	N	ON	9.6
0.597750	---	27.07	46.00	18.93	15000	9.000	N	ON	9.6
0.597750	39.25	---	56.00	16.75	15000	9.000	N	ON	9.6

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

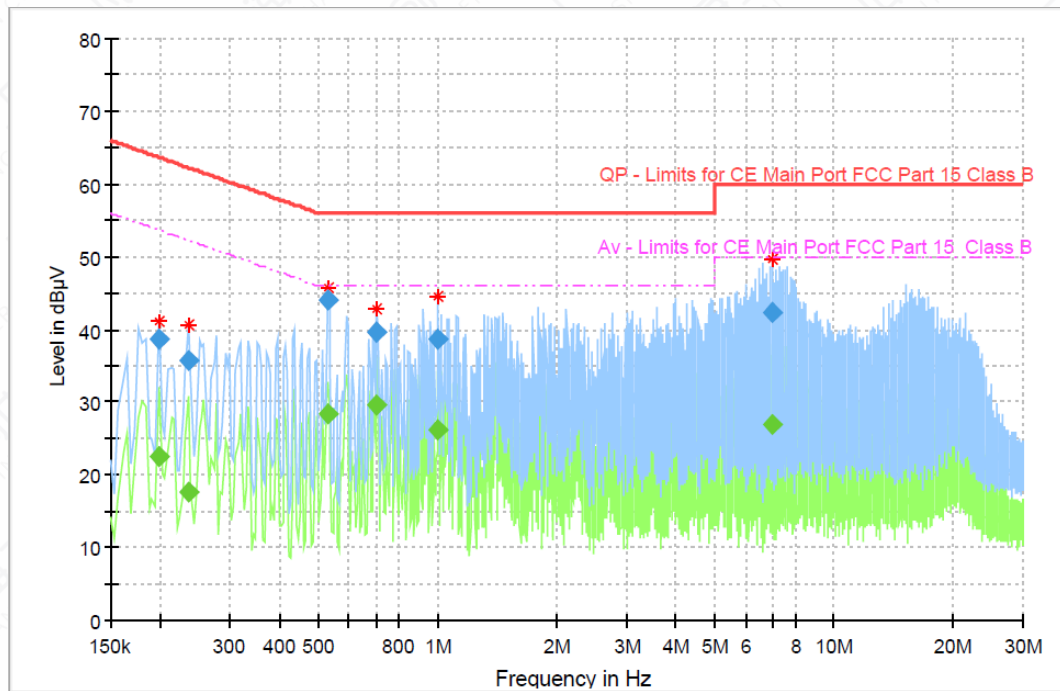


Figure A.2-6 Mode 2 (150kHz-30MHz) _ S03aa (Standard edition mainly supply) + BC02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.198506	---	22.44	53.67	31.24	15000	9.000	N	ON	5.7
0.198506	38.68	---	63.67	24.99	15000	9.000	N	ON	5.7
0.235819	---	17.60	52.24	34.64	15000	9.000	N	ON	6.3
0.235819	35.66	---	62.24	26.58	15000	9.000	N	ON	6.3
0.530588	44.03	---	56.00	11.97	15000	9.000	N	ON	9.6
0.530588	---	28.26	46.00	17.74	15000	9.000	N	ON	9.6
0.702225	---	29.57	46.00	16.43	15000	9.000	L1	ON	9.6
0.702225	39.53	---	56.00	16.47	15000	9.000	L1	ON	9.6
1.000725	---	26.16	46.00	19.84	15000	9.000	L1	ON	9.6
1.000725	38.71	---	56.00	17.29	15000	9.000	L1	ON	9.6
7.011769	42.33	---	60.00	17.67	15000	9.000	L1	ON	9.9
7.011769	---	26.90	50.00	23.10	15000	9.000	L1	ON	9.9

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

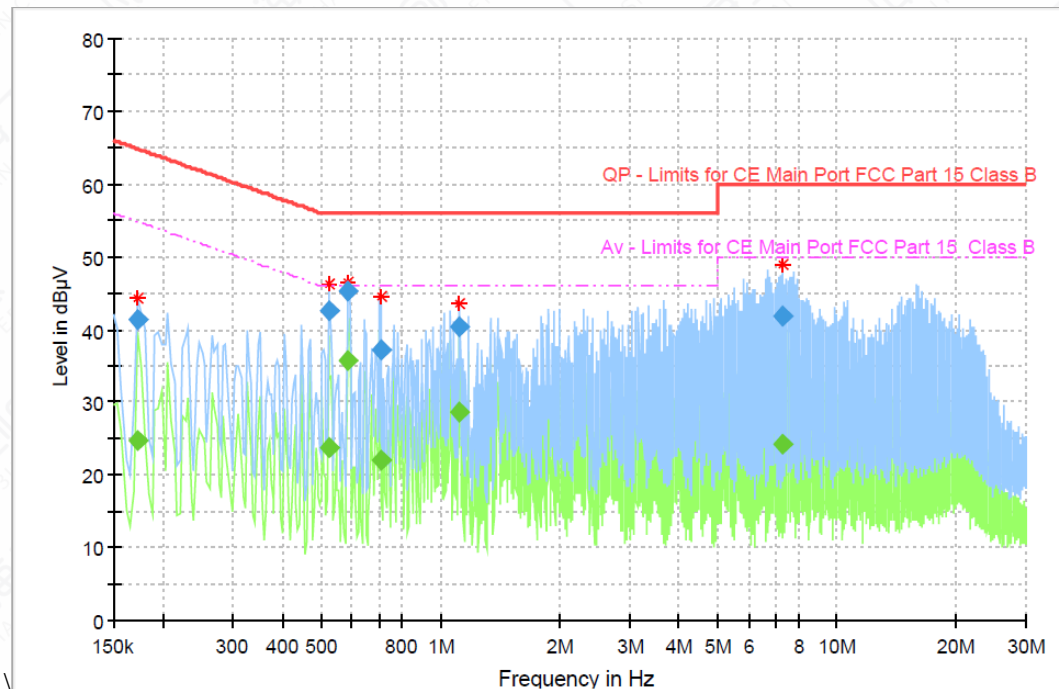


Figure A.2-7 Mode 5 (150kHz-30MHz) _ S26aa (Scan edition mainly supply) + BA02

Frequency (MHz)	QuasiPeak (DbμV)	Average (DbμV)	Limit (DbμV)	Margin (Db)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (Db)
0.172388	41.32	---	64.85	23.52	15000	9.000	N	ON	7.6
0.172388	---	24.68	54.85	30.16	15000	9.000	N	ON	7.6
0.523125	42.62	---	56.00	13.38	15000	9.000	L1	ON	9.6
0.523125	---	23.70	46.00	22.30	15000	9.000	L1	ON	9.6
0.586556	---	35.67	46.00	10.33	15000	9.000	L1	ON	9.6
0.586556	45.33	---	56.00	10.67	15000	9.000	L1	ON	9.6
0.705956	---	22.05	46.00	23.95	15000	9.000	N	ON	9.6
0.705956	37.11	---	56.00	18.89	15000	9.000	N	ON	9.6
1.120125	---	28.66	46.00	17.34	15000	9.000	L1	ON	9.6
1.120125	40.45	---	56.00	15.55	15000	9.000	L1	ON	9.6
7.325194	---	24.31	50.00	25.69	15000	9.000	L1	ON	9.9
7.325194	41.76	---	60.00	18.24	15000	9.000	L1	ON	9.9

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

Annex B: Revised History

Version	Revised Content
V00	Initial
V01	Update section 5.5
V02	Add section 1.2 note 3

Annex C: Accreditation Certificate





Accredited Laboratory

A2LA has accredited

**INDUSTRIAL INTERNET INNOVATION CENTER
(SHANGHAI) CO., LTD.**

Shanghai, People's Republic of China

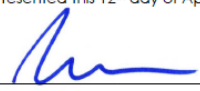
for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 12th day of April 2021.



Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3682.01
Valid to February 28, 2023

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

